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The Sperry ZERO READER\* is a new type of gyroscopic flight instrument. It combines attitude, altitude, heading and radio path information on a simple two element indicator which tells the pilot exactly how to move the flight controls of his airplane.

• Developed by Sperry with the encouragement and cooperation

of All-Weather Flying Division, USAF and the Air Transport Association, the ZERO READER takes its place among other Sperry "firsts"—the Gyro-Horizon, Directional Gyro, Gyrosyn Compass and Gyropilot. Like these precision instruments it reflects in its performance the laboratory research and careful flight testing which have contributed to

marked advancements in instrument flying.

The ZERO READER is another example of Sperry's pioneering in equipment to help make air travel increasingly independent of weather for it is the only manual system which approaches the performance of stabilized automatic flight control.

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# The Cover

#### BREAKING THE HOME TIES

BREAKING the home ties cannot be er than an occasion of mixed emotions. nderment at what the future holds; the exeration induced by the boldness of the ment, at the contemplation of facing the rld on one's own. The deeper personal sacriof severing the close bonds of love and idance of parents and friends and the many, any other little things that make up the intihe home life. Perhaps few men, who later tained the heights of prominence, ever left ne feeling other than humble as they appached the rim of great cities. The challenge their ability, courage, and strength was and present wherever they turn in a vast city cre personalities, somehow, seem to get lost the swiftly moving current of commerce and dustry.

And yet, it seems strange that in a thing so mplex as our work pattern each individual th his specialized knowledge fits into a given the as nicely and precisely as pieces in a jigw puzzle. The endless variety of standarded and specialized activities is always alert to use who by initiative, imagination, application, and perserverance outstride their fellow orkers or associates.

Some of the attributes of the adventurer, and e daring of conquerors are qualities built into e being of the thousands who yearly seek the stillment of their careers and fortunes in fields a from the ties of home.

CLARENCE SWITZER

PROFY, "BREAKING THE PROME TIES," IS ONE OF A SERIES OF SUBJECTS CUL-TUR APPLANING ON THE COVERS OF "BUT'S ETVIEW," THE PRINTS HAVE YA AND WILL CONTINUE TO SISON SORE OF THE RAKEY EVENTS, CIR-"TANCES, OR WAYE OF LIFE DURING THE NIMEREMENTE CRETURY WHICE SO

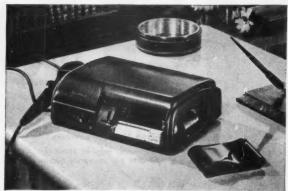
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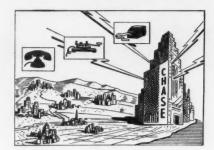
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Company		
Street Address		

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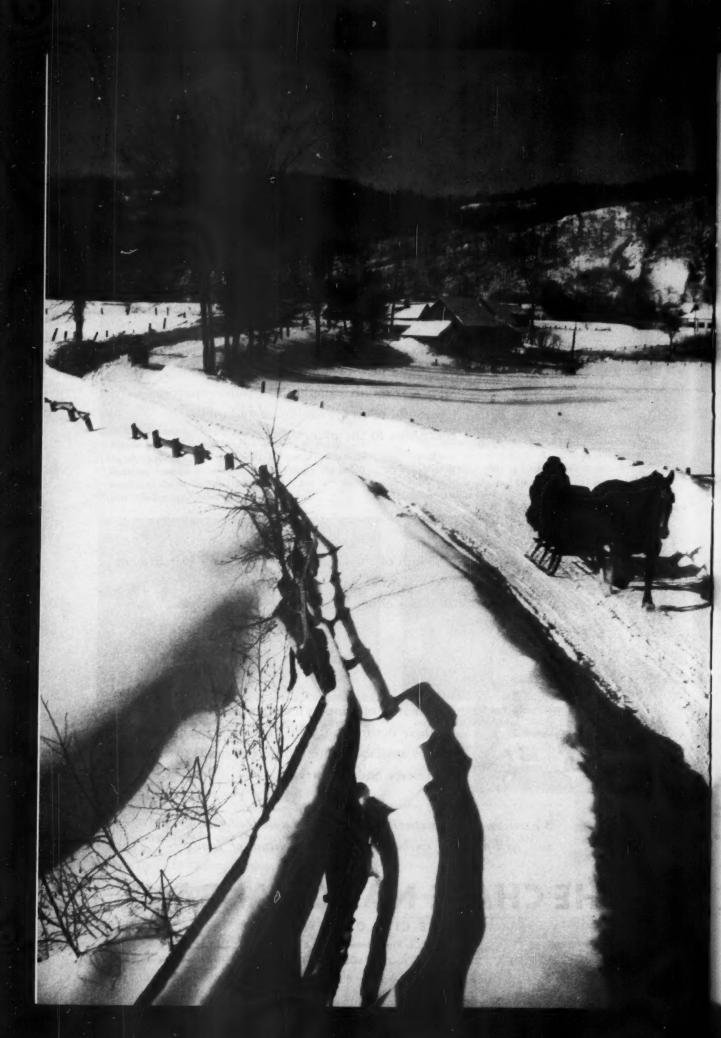
In a matter of minutes transfers are on their way to their destination. This efficient transmittal system makes available more rapidly the funds so vital to commerce and industry.

We welcome the opportunity of serving you with this efficient and well-planned method for the transmittal of funds.

## THE CHASE NATIONAL BANK

OF THE CITY OF NEW YORK
HEAD OFFICE: Pine Street corner of Nassau

Mamber Federal Deposit Insurance Corporation





"There can be, in any business, conversations between management and the employees they supervise," emphasizes the author. Here Fowler McCormick, International's chairman, listens to an outline of tests on a cotton picker.

Mow can management encourage a better understanding of its thinking and of what it does? To whom should it talk? What means are effective for getting across to workers, their families, and the community the "why" and the "how" of what is happening in a company?

# Let's Stop Talking to Ourselves

#### JOHN L. McCAFFREY

President, International Harvester Company

HE continuing conduct of our American business under a system that stresses the individual's freedom to undertake any legitimate enterprise, at his own risk and in his own manner, is our salvation and the hope of to-morrow.

However, not all segments of the American public agree that capitalism or free enterprise—call it what you will—is the best economic, social, and political system. As a result, American capitalism is under widespread attack, both frontal and oblique. And this attack is gaining momentum day-by-day despite the earnest efforts of many men

and many organizations to combat it.

The attack comes from collectivists of all kinds; from socialists and communists, of course, because they cannot hope to realize their ambitions until American capitalism is discredited and abandoned. So long as it continues to function—as it has—more successfully than their systems, they not only will be disappointed in their hopes of collectivizing the United States but they can never feel secure elsewhere.

Unfortunately, however, not all the attacks come from socialists and communists. Although vicious and damaging to the American economic system,

it is not the effort of the collectivists that is causing us the greatest concern. The avowed enemies of capitalism are known for what they are and for what they would like to accomplish.

Much of this attack, and probably the most damaging part of it, comes from well-meaning people who do not understand the facts of American business life; who actually think that an ordinary man becomes a superman if he holds a government office; who actually believe that there is some magic power in government to cure all ills; who really think that all incentive and all initiative and all freedom can be taken away and still the economy will continue its miracles of production.

It is this lack of understanding of our own system among our own people that should be our greatest concern to-day. Unless these people come to fully understand our business system and its advantages to them as individuals as well as to the groups of which they are a part, that system is in constant danger of being changed.

Who is at fault? It lies with people from all walks of our economic life. But the American business man must share a great part of such negligence.

Why has he been at fault? The American business man has been far too busy standing up in front of other business men and selling them a system they have already accepted.

When are we going to stop talking to ourselves and begin to talk to the people we have to persuade?

I have some ideas on this subject. I do not claim that they are original nor do I claim that they are the only right ones. But, for what they are worth, I would like to discuss them briefly.

First of all, who are the people we want to convince? There are several groups, of course, and eventually we

International Harvester Company seeks to bring top management closer to supervisors and workers through weekly management bulletins and letters sent to employees at their homes. The letters are written by Mr. McCaffrey or the plant managers. A selection of these communications is at the right. Company publications, such as "Today," are another important part of the program.



INTERNATIONAL HARVESTER COMPANY CHICAGO I, ILLIEOIS June 30, 1949

Harvester Works People:

The purpose of this lelest is to fall you about our business substitute. Particularly 45 if affects we present the lelest is to fall you about our business, such any change in job profess. The purpose of this lelest is to fall you about our businesse, such any change in job profess. The purpose of this lelest is to fall our.

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We do not patinue to be dow the rect

To Harvester Managerial People:

1. HARVESTER SEMIMAR FOR URIVERSITY PROFESSORS: The Company has just concluded one of the most interesting experiences it has ever had in the field of education and pair relations—a four-week progress for Six University professors who were invited to can and learn all they cared to know about the Company's business. Scores of managerial people in the General office, in two large works, at Manufacturing Research and classific of fice, had a part in explaining the many-sided nature of our business to the professors. professors.

INTERNATIONAL HARVESTER COMPANY

SSOTS. Purpose behind the program, of course, was to have able wen who are teaching in olleges and universities know more about American business in general and Harvey our colleges and universities know more about American Dusiness in general and Harvey, in particular. Knowledge about businesses such as ours has an important place today a every level of educational effort. Likewise, menogerial people in businesses like meet to know more about the educational field, what is being tought and what is needs teaching. Hence, it seemed a good idea to invite some teachers from key universities come into our Company, open all the doors to them, and let them see how a company like

So, back in June six universities were asked if they would care to pick men to attend this first program. All said yes. The six schools were: University of Illinois University of Minnesota, Iowa State College, Furdue University, The six professors who can nite, assistant deum, School of Business and State College and Park assistant deum, School of Business assistant deum auch deum au nitz, assistant denn, Sonton J. E. Wills, agricultural eco-agricultural educati Universit Prof. Michael O'Brien, engineering design, Pur Penn State College, and



October 13, 1949.

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INTERNATIONAL HARVESTER COMPANY FARM TRACTOR DIVISION

July 5, 1949

ADDRESS REPLY TO LOUISVILLE WORKS

September 7, 1949

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program to

TO ALL LOUISVILLE WORKS EMPLOYES:

We believe you will be glad to know that we expect to resume production of A and C tractors next Monday. Furthermore, we will be able to recall and of the 1,075 employee who have been laid-off.

We have a new manufacturing schedule for our less than it was before we temporarily storme? schedule is 140 A and C tractors o 4 which is about 405 her May 11. The me ous employment fig

WEST PULLMAN WORKS

October 14, 1949.

BULLETIN

The Tractor Works strike, which had been in progress since September 20, ended this morning. To the Managerial Organization: You will recell that the original Wildest Strike begun by the FE Union at Tractor Your appropriate that the company to 22 employees week suspensions given by the Company to 25 employees had participated in a previous welkout, and a two was had participated in a previous welkout, and of the president of the local union for this part that the track that it the president of the FE International Suspensions of the president of the International Suspensions of the president of the International Suspensions of the president of the International Suspensions of the President Suspensions of the President Suspensions of the International Suspensions of the Inter

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would like to convince everybody. But I don't believe there is much argument against the idea that the very first people we ought to convince are the people who work with us and for us every day—the employees of American businesses.

They are the group closest to every business. They are the group with the greatest power for good or ill in every business. They are the group on which the enemies of capitalism have concentrated their fire. If all the people who work in business had the same enthusiasm and understanding as those who own or manage businesses, the problem would wither up in no time.

Second, I would say, are the families of employees. In our business, we only see our people five days a week, eight hours a day. The other 128 hours of every week they are with their families. It is important that the families of employees understand and believe in the system in which the employee works.

Third, I would point out that we have a job to do before we can truthfully say that all management people are as well grounded in the fundamentals of our economic system as we would like to have them be. Yet it is vital that they understand, both so that they can work more intelligently and so that they can discuss the subject with the employees they supervise.

Fourth, are the people who live around us in the communities where we do business. What the community thinks has a big influence on what the

employees and their families think.

Fifth, are the customers and stock-holders, the other two groups most closely related to our businesses.

I think those are the groups we are naturally most concerned to reach and, of them all, it seems to me it is most important that we try to bring about better understanding on the part of employees. I think that is the place to start.

#### Price Tags of Socialism

The next problem is how we approach the subject, in what terms are we going to talk. Should we say, "You ought to believe in this because it is your patriotic duty" or should we say, "You ought to support this system because it is best for your own pocketbook"? Or do we say, "You ought to support this system because it is the only one that has ever kept men free"? Or should we make some combination of those appeals?

Of them all, it seems to me it is most important to spell out the question of freedom. Freedom affects everybody, rich or poor. Personal freedom is perhaps the main thing that makes our system different from other systems. And our competition—the people who are selling socialism under any of its various names—cannot meet that point. Because everything they promise—and

they are great promisers—always has a price tag on it and a part of that price tag is that the citizen has to give up freedom.

They promise economic security, for example, but it always means that we must give them various controls. When the collectivist promises economic security, the price tag says that government will order where men shall work, and at what, and for how much; and what goods shall be produced, and how many and who can buy. And by the time the collectivists have finished their controlling and their limiting and their forbidding and their commanding, what began with a promise of prosperity for everyone, forever, ends up as an "austerity" program or a "second five-year plan" or some other scheme for dividing up the scarcity.

How do we talk? I don't believe we can get any place by trying to lecture employees or anybody else on abstract theories of economics. I think we are going to have to talk very specifically, using events that actually happen every day, talking about the kind of people known to everyone, talking in simple language, and proving theory by homely example.

For example, we wanted recently to talk about capitalism to listeners on our

company's radio program, "Harvest of (Continued on page 55)

Adam Condo, Manager, International Harvester Company's Memphis Works, greets workers and their families in the cafeteria during the Memphis Works' open house. Such activity is carried on in all of the company's 23 manufacturing plants and plays a major rôle in the company's efforts to acquaint workers and their families with its activities, problems, and future plans.



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# Miracle in

NORTH BIGBEE

HE Twentieth Century Man found a new black magic in oil. Magic to speed him through the air and over the land and water; magic to give him new wealth and power. But as he becomes ever more dependent on oil there arises the problem of its exhaustibility. Are the present petroleum resources adequate? Are they being developed with foresight and economy?

DRILLING OPERATIONS AT NIGHT-CARTER OIL COMPANY PHOTOGRAPH methods worked out by the oilmen themselves. Prophecies that we would soon run out of oil began even prior to our first well. Early in the 1850's a Pittsburgh salt merchant, plagued by the petroleum seeping into his salt wells, bottled it in half pints as a cureall. "Hurry," he urged the ailing, "before this wonderful product is depleted from Nature's laboratory!"

Six years before Colonel Edwin L. Drake drilled the first oil well, a Dartmouth chemist analyzed a bottleful from Pennsylvania's oil springs. Undoubtedly valuable, he reported, but enough would never be recovered to make it an article of commerce. Even

the backers of "Drake's Folly" were so sure the petroleum would soon be gone that they persuaded hometown papers not to print news of the discovery.

As early as 1874 Pennsylvania's State geologist warned there was barely enough oil left to fill the nation's kerosene lamps for four more years. And in 1882 the Institute of Mining Engincers was informed by Samuel Wrigley that our total remaining petroleum reserves were only 96 million barrels; a four years' supply at the then current rate of yearly output. Some time later David White, chief geologist of the United States Geological Survey, estimated as of 1919 our total oil supply,

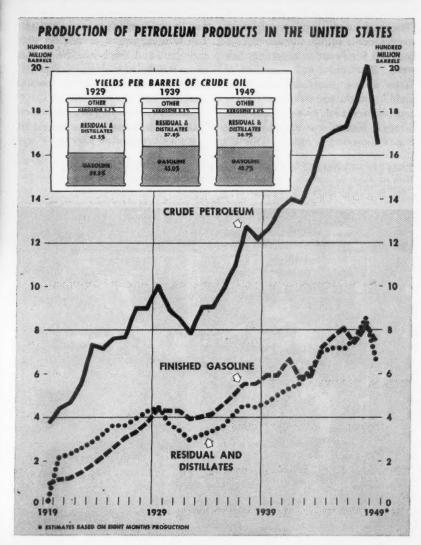


OT ALL conservation today lies in saving topsoil, water, and forests. Less generally known, but even more amazing strides have been made in conserving oil. Thanks to conservation, the American oil industry reached the ripe age of 90 in August 1949. Reported on its last derrick-legs periodically since 1859, it has already contributed some 40 billion barrels to the winning of two wars and the accomplishment of our major industrial growth. Still on tap are known to be nearly 27 billion recoverable barrels, the most in our history.

More than half of these proved reserves result directly from conservation



FIGE REFINERY OF STANDARD OIL CO. OF NEW TERSEY-BORERTS PHOTOGRAPS



both known and yet to be discovered, at less than seven billion barrels, barely enough for 15 years.

"Petroleum in the United States is a wasting asset," he said. The panic-stricken Secretary of the Navy, we had just then emerged from World War I, demanded that Congress nationalize oil for the fleet. Then in 1926 a Federal oil board appointed by President Coolidge officially estimated our remaining proved reserves at only four and a half billion barrels, barely enough for six years.

Yet in the past 30 years American oilmen have found more than eight times as much oil as the 1919 expert believed existed. They have produced seven times as much since 1919 as in the entire 60 years preceding.

The magic which has replenished our oil tanks is the conservation technology of oilmen spurred by the rewards of free enterprise. Prospectors developed scientific exploration methods which quintupled their chances of finding oil or gas. Producers worked out ways to recover two to four times as much oil as had been recovered from the older fields. Refiners doubled the useful possibilities of our reserves by inventing processes that get more than twice as much gasoline from a barrel of crude. These oilmen changed the search for oil from a game to a business, then to an industrial science.

Less than a generation ago the story was quite different. Although gullied farms and stump-ghosted forests scarred many a countryside, the oilman was still the most conspicuous exploiter of our natural resources. Many thousands of barrels of oil were lost in the early days before well drilling became a science. The first gushers often ran for days or weeks before the copious flow could be arrested. Fields were overdrilled into thick forests of derricks whose legs almost overlapped. Sites were so small in some of the old fields that drillers had to rent additional space for their boilers. Parts of the field could be travelled afoot without touching the ground, by stepping from the floor of one derrick to the next.

Gushers have persisted as the symbol of the industry because they were spectacular. Actually they went out of style many years back. The oilman,

1 9 4 9

long a gambler in a high-stake game, finally turned to science to make the most of our resources. To-day he utilizes everything from primordial microbes to neutrons to find, flow, move, and refine more oil.

The most drastic changes are in the ways he hunts it. Many an early prospector staked his wildcat test strictly by hunch, or by divining with a forked stick baited with a bottle of oil, or by throwing up his hat in a high wind and drilling where it landed. One wildcatter followed a king-size grass-hopper until it quit hopping.

To-day the oilman has tools which in effect see miles into the earth. With the magnetometer he harnesses magnetism for clues to deeply buried bumps of magnetic rocks; the rocks above these bumps may also have arched, and dammed oil against their sides. His gravity-meter and torsionbalance measure minute differences in the pull of gravity to ferret out domes of heavy rock or of lighter salt which may have trapped oil. Shooting off dynamite underground, he makes miniature earthquakes whose soundwaves echo up from the various strata to the electric ears of a seismograph. The seismograph translates the echo's strength and speed into a photographic record of the earth's rock layer-cake. With such devices the oil explorer has raised his average to one producing well out of five scientifically located exploratory tests.

Much new oil has been found merely by deepening old fields. In one instance the first year of deep drilling at a developed field yielded more oil than the field's total for the 21 years preceding.

At the Seeligson field in southwest Texas, 42 separate oil-producing horizons were found as the drill went deeper. Scores of fields have from two to a dozen. Modern steel derricks are capable of holding up more than a million pounds of drill-pipe or casing. They have already bored four miles into the earth.

One of the oilman's most fruitful discoveries was that he could remove more oil in the long run by flowing less at first. When a Wyoming field began producing more oil than could be transported, a few operators bucked

the superstition that it ruined wells to choke them, and limited their production to a pro rata share of the available transportation. Surprisingly, the prorated wells kept on flowing, and ultimately produced unexpected quantities of oil. Others allowed to run wide open soon had to be pumped, a costly last resort for extraction.

#### Proration Arguments

When Oklahoma and Texas began drowning in their oil in the late 1920's, they took up this voluntary proration, made it official, then compulsory. However, since 1867 oilmen operated under a carryover from an English judge's decision that the earth's "percolating waters" belonged to whoever sank a well and thus captured them.

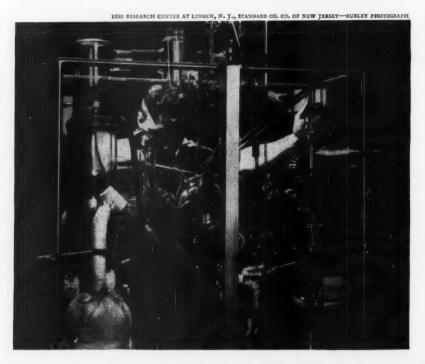
A fight over this theory of legal rights was inevitable. The huge East Texas field became a bloody battleground. Old-school oilmen and greedy newcomers legally enjoined or secretly violated the State's orders prorating their wells. The courts, still suspicious of proration as a price-fixing subterfuge, usually upheld them. It was many court-houses and much chaos later before a Federal court approved the State's conservation order.

To-day an East Texas field well which might have made 20,000 barrels in 24 hours is held to a daily average of less than 20 barrels. But this field, originally estimated as good for between one and two billion barrels, aiready has produced more than two and a half billions. Engineers now expect a total of five and a half billions before its last pump is still.

Spacing wells scientifically is another conservation practise. The goal is to drill only the number needed to drain the pool evenly and fully. The bad effects of overdrilling were shown at Mexia. Tex., where hundreds of holes were feverishly drilled. Derricks were jammed in until a well would lose twofifths of its daily flow within a couple of days after the neighbor jostling it began to fight for the same oil. Output, which in four months topped five million barrels a month, skidded to less than five million a year five years later. The bristling maze of derricks that once studded the boom towns has given way to such wide spacing that an oil field hardly looks like one any

There's a new saying in the industry.
"More oil is found in the laboratory
(Continued on page 44)

To-day's oil prospector works in a laboratory surrounded with the tools of modern science. Here are discovered not only new sources, but new uses for petroleum and its products.



What were the underlying reasons for the 2,261 business failures which occurred during the third quarter of 1949? How may these causes of business failures be classified? The answers to these questions may be found in this, the first of a continuous series of surveys of the causes of failures to be published quarterly by Dun & Bradstreet, Inc.

# Why Do Businesses Fail?

#### GRIFFITH M. JONES

Assistant to the President Dun & Bradstreet, Inc.

MNQUESTIONABLY, the outstanding fact which this new study of the causes of business failures reemphasizes is that the success or failure of a business enterprise depends almost entirely upon the quality of judgment exercised by the principals in the initial planning stage and during subsequent managerial activities, particularly until the business is thoroughly established.

Broadly classified, most failures—90.2 per cent according to this study—are the result of inefficient management due to inexperience or incompetence, and the great majority of the underlying causes are actually the ways

in which inefficient management is indicated.

Failure statistics consisting of a compilation of the numbers of failures and the amounts of liabilities by lines of business and by locations have been kept by Dun & Bradstreet, Inc., since 1857. Summaries of these figures are published weekly through the public press and monthly in Dun's Review (see page 28); detailed figures appear monthly in Dun's Statistical Review. In addition to this, the results of the new continuous study of the causes of business failures will be published quarterly.

Observations which apply generally but not inflexibly to this study follow:

1. Only one broad classification is assigned to each case.

Note: If a business was neglected, or the management was dishonest, or the business met disaster, it is of little importance, from the standpoint of the cause of the failure, whether or not the management was inexperienced or incompetent.

2. When classifying experience, the experience factors are assumed to have been present if the management had been in control for three years or more

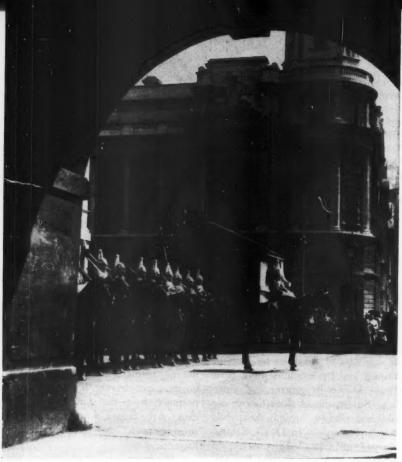
(Continued on page 43)

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#### Classification of Causes of BUSINESS FAILURES in the Third Quarter of 1949

Based on Opinions of Informed Creditors and Information in Dun & Bradstreet's Credit Reports

MINADED	DED OF H					200 00100
NUMBER	PER CENT	BROAD CLASSIFICATION		UNDERLYING CAUSES	NUMBER	PER CENT
				Bad Habits	21	0.9
105	4.6	Neglect:	Due to	Poor Health	50	2.1
	11000001		Date 10	Marital Difficulties	17	0.8
				Other	17	0.8
				Misleading Name		
				False Financial Statement	1	0.0
31	1.4	FRAUD:	On the part of the principals, reflected by	Premeditated Overbuy	2	0.1
			cipals, reflected by	Irregular Disposal of Assets		1.0
				Other	6	0.3
595	26.3	LACK OF EXPERIENCE IN THE LINE		Inadequate Sales	920	40.7
				Heavy Operating Expenses		16.9
510	22.6	LACK OF MANAGERIAL EXPERIENCE	Evidenced by inability to	Receivables Difficulties	131	5.8
			avoid conditions which resulted in:	Inventory Difficulties Excessive Fixed Assets	314	13.9
144	6.4	UNBALANCED EXPERIENCE			322	14.2
				Poor Location	40	6.8
790	34.9	INCOMPETENCE		Competitive Weakness Other	153	
				Other	101	4.5
				Fire	20	0.9
			Some of these occur-	Flood		.,
45	2.0	DISASTER:	rences could have been	Burglary	4	0.2
45	2.0	DISASTER;	provided against through	Employees' Fraud	3	0.1
			insurance.	Strike	15	0.7
				Other	3	0.1
AT	1.8	REASON UNKNOWN		Because some failures are attribu	ted to a combine	nation of under
2 26-	-			lying causes, the totals of these		
2,261	100.0	TOTAL		the corresponding columns on th		



CHANGING THE GUARD; WHITEHALL, LONDON-CUSHING PHOTOGRAPH

Now WILL DEVALUATION
AFFECT THE ECONOMIC PROBLEMS
OF GREAT BRITAIN? WHAT IS
THE CURRENT ATTITUDE OF BRITISH MANAGEMENT AND THE PUBLIC TO LABOR PARTY PLANNING?
WHAT LESSON CAN WE IN THE
UNITED STATES DRAW FROM THIS
EXPERIMENT IN ECONOMIC PLANNING? HERE ARE THE OBSERVATIONS AND OPINIONS OF ONE WHO
HAS LONG BEEN CLOSELY ASSOCIATED WITH MANAGEMENT GROUPS
IN GREAT BRITAIN.

# The Great Experiment:

#### BRITISH MANAGEMENT LOOKS AT

Lator Party Planning

HARRY WARD

EVALUATION of the pound is a realistic indication of the effectiveness of Great Britain's effort in 1949. Let no one assume that Great Britain cannot and will not do much better. It must never be forgotten that during the war there was a loss to the country of £7 billion in pre-war values when there were \$5 to the pound. Most overseas investments including those in the United States were sold; enormous damage was done to the country.

This \$35 billion capital loss is the backdrop in front of which the drama of the British people is being enacted.

What had to be sold for guns and food to hold up the advance of Nazism toward the West was not accomplished under favorable conditions. For example, the British Government received for the American Viscose Corporation £13.5 million, whereas the written down value of the company at that time was £32 million!

What is Great Britain like these days? During the year many buildings have received new coats of paint; shop windows smashed nine years ago have been replaced. They give a brightness which we have not known for ten

years. Longer paid holidays have become the rule and, as if signifying divine approval, the weather has been magnificent. Literally, however, the gilt is off the gingerbread for the quality of available food has steadily deteriorated.

Last Christmas as a piece of idle dreaming my wife and I prepared a list of the minimum extra food we should like for a family of four during 1949, and the weight of the extra food which would make life tolerable was 400 pounds—a quarter of a pound for each a day. When I came to check this



With special permission of "Punch," September 21, 1949

it only gave us food at the level which the average British person had before the war. It was merely bringing us to the average of rich and poor alike in pre-war days.

There now seems to be no hope of more good food. To obtain a fresh egg is a rare event for all eggs are collected in a slow-moving system. Marshall aid has prevented a most serious drop in our food consumption. We can never be too grateful for it. As I write, the good news comes through that our

meat ration will be raised to 20.5 cents worth for each person a week! (At the time of going to press a month later I had not yet received the increase.)

Not only did the war damage the country materially, but there was endless social disturbance. Millions of people had to leave their homes. One result of this can be seen in increased juvenile and other crime. The crime rate in the country is four times what it was at its worst after the last war. The crime rate continues to expand and it is estimated that it will reach its peak about 1952.

Coupled with this is an attempt to increase the volume of education in spite of the fact that buildings were too old before the war; many were damaged; the supply of teachers is sorely inadequate; books and equipment are lacking. Children leave school with an inferiority complex, with no adventurous urge to get to grips with the real jcbs of life. The educational standard is much lower than pre-war.

A great health scheme has been introduced. It is costly and probably wasteful. It is too soon to assess the benefits. Although sickness rates of those who work are two to three times larger than they were before the war, it is possibly true that over-all health is somewhat better. Certainly this is so for the old and infirm and for the very young.

#### Burden on Women

It is probably true that the women of the country spend more than a million hours a year in queues. All the control of food and much else means endless clerical work and endless waiting. The great burden of the times falls on the women. The five-day week has become common and women who have their men at home on Saturdays hate it. If the men worked on Saturdays there would be decent food for the family on Sunday. It can be understood in these circumstances that the mass of the people is gradually spending such savings as it has.

A marked feature of the times is the growth of the Civil Service and one of the troubles in this is that the Civil Servant is in danger of becoming political in a way hitherto unknown in this country and in this century. The new type of Civil Servant is prepared to lecture an industrialist on how to run his business. The Civil Servant has nothing to lose by it, but the business man has everything. The latter is more likely to be the wiser of the two. Economic necessity, however, is now forcing the Government to reduce its personnel by 5 per cent.

A heartening feature of the times is the quality of technical ability. There are many signs that in the technical sphere Great Britain takes second place to no other country. Undoubtedly production is increasing rapidly. People are again acquiring peacetime routines which ease the burden of labor by practise and custom.

The loss of our oversea investments, particularly those in dollar currency areas, was the factor which determined the reduction of the pound from its pre-war figure of \$5.00 to \$4.03. We

(Continued on page 47)



"Manufacturers who have sold to the United States at a loss may now make small profits there. On the other hand, the United States may now be able to buy raw materials such as wool, rubber, and tin at a lower dollar price."



#### DEVANEY PHO

#### RICHARD SANZO

Specialized Report Department Dun & Bradstreet, Inc.

THE RELATIONS AMONG SALES, PROFITS, INVENTORIES, AND DEBT REFLECT THE SUCCESS OF BUSINESS OPERATIONS. THIS EIGHTEENTH ANNUAL STUDY BY ROY A. FOULKE, VICE-PRESIDENT, DUN & BRADSTREET, INC., IS BASED ON REPORTS FROM OVER 2,500 MANUFACTURERS GENERALLY WITH A TANGIBLE NET WORTH OF \$50,000 OR MORE.

REDUCED net profits in relationship to net sales; a lower median ratio of net profits to tangible net worth; and reduced turnovers of tangible net worth were among the more significant of the changes reflected by a comparison of the ratio studies on manufacturers for the year 1948 with those compiled for the year 1947. Since 1931 these ratio studies have been compiled on 36 lines of manufacturing.

The median relationship of net profits to sales declined in 27 of the 36 lines in 1948, and was below the past five-year average in half of the manufactur-

ing lines included in the studies. In six of these lines, the median ratio of net earnings to net sales was below 2 per cent. These were children's clothing; dresses; leather garments; fur garments; shirts, underwear, and pajamas; and women's and children's shoes. In seven other lines, however, the median ratio of net profits to sales was above 6 per cent. These latter lines included chemicals; confectionery; cotton cloth mills; hosiery; industrial machinery; metal stampings; and paper.

As a corollary, a decline in the ratio of net profits to tangible net worth was reflected by the median figures in 30 of the manufacturing lines between 1947 and 1948. At the same time, the median rate of return on invested capital continued to exceed 10 per cent in 22 of these lines. It fell below 5 per cent in fur garments; luggage; and shirts, underwear, and pajamas.

The reduced ratio of net profits as related both to sales and tangible net worth was also reflected broadly in the studies of retail ratios in the October issue of Dun's Review and in the ratios on wholesalers which appeared in the November issue. It was apparent that

at all levels industry and trade were coping with increasingly high breakeven points, resulting from increased costs of operations.

According to estimates made by the United States Department of Commerce, total dollar sales for manufacturers for 1948 were approximately 12 per cent higher than for 1947. It is, therefore, surprising to find that the 1948 median figures reflect a reduced turnover of tangible net worth on the part of 22 of the manufacturing lines covered in the studies.

In view of the record high level of sales transacted generally by manufacing industries, the reduced turnover of tangible net worth would appear to be the result of an accumulation of surplus funds which could not be employed as actively as in the previous year. In some cases the rate of turnover of tangible net worth was relatively low, as in paper, which showed a median relationship of 1.87, and hosiery with a median turnover of tangible net worth of 1.74 times. In these two lines the low rate of turnover was offset by the median ratio of net profits to sales which exceeded 6 per cent.

## Fourteen Important Ratios

The effect of the retention of sizable net earnings was reflected in improvement in the aggregate financial conditions of the manufacturers. Median current ratios were increased in two-thirds of the manufacturing lines and the relationship of current debt to tangible net worth was reduced in 26 of the lines. A similar reduction was reflected in the median relationship of total debt to tangible net worth.

In only one of the lines was a current

ratio of less than "two for one" reflected; that was canners of fruits and vegetables. In that particular line the current ratio was 1.56 and the median ratio of tangible net worth to debt was 106.6 per cent. In nearly all of the lines, with the exception of dresses, canners of fruits and vegetables, fur garments, and shirts, underwear, and pajamas, the median ratio of current debt to tangible net worth fell well below 50 per cent. Notwithstanding the availability of

merchandise in increasing supply at a time of rising sales, the majority of the manufacturing lines were able to improve the turnover of merchandise in relation to net sales.

Inventories comprised less than 80 per cent of the net working capital at the median range in 90 per cent of the lines. Lines in which relationship of inventory to net working capital was in excess of 100 per cent were cigars and canners of fruits and vegetables.

When any figures are listed in order according to size, the median is the middle figure and the quartiles are the figures one-quarter and three-quarters down the list. Here only the medians (in bold face) and the quartiles (in italics) are included.

Line of Business (and Number of Reporting Concerns)	Current Assets to Current Debt	Net Profits on Net Sales	Net Profits on Tangible Net Worth	Net Profits on Net Working Capital	Turnover of Tangible Net Worth	Turnover of Net Working Capital	Average Collection Period	Net Sales to Inven- tory	Fixed Assets to Tangible Net Worth	Current Debt to Tangible Net Worth	Total Debt to Tangible Net Worth*	to Net Working Capital	Current Debt to Inventory	Funded Debts to Net Work- ing Capital
	Times	Per Cent	Per Cent	Per Cent	Times	Times	Days	Times	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
			FOR 36	MANUFA	CTURING	LINES-	-1948N	MEDIA	NS AND	QUARTIL	.ES			
Automobile Parts	4.46	8.03	26.85	41.49	4.14	5.89	29	8.2	28.2	23.7	39.0	58.7	50.1	7.2
and Accessories	2.67	5.90	18.39	33.20	2.86	4.54	34	5.3	39.2	33.9	53.7	72.6	82.4	39-9
(66)	2.28	3.31	9.75	16.79	2.12	3.12	41	4.2	54.6	50.5	82.4	111.4	118.4	48.7
-	3.76	4.26	17.55	67.45	6.89	35.45	6	32.4	49.1	14.3	90.4	46.4	52.2	32.0
Bakers (39)	2.11	2.25	11.25	50.20	4.59	13.45	16	25.8	52.6	26.9	110.8	65.1	121.0	65.0
	1.28	1.54	7.78	13.28	2.94	10.36	21	10.6	99.8	45.3	187.5	107.0	236.0	153.0
Bedsprings and	4.49	8.55	23.65	32.70	5.05	8.02	20	10.4	17.3	21.1	41.8	48.9	44.0	9.8
Mattresses (50)	2.78	3.69	13.70	22.40	3.51	5.31	28	7-4	29.7	34.1	44.8	72.7	69.4	31.7
mattresses (30)	2.15	1.53	6.23	7.90	2.44	3.31	37	6.1	46.0	48.6	84.0	100.9	104.4	49.0
	2.56	6.55	19.66	40.70	2.97	24.28	4	15.5	60.5	17.6	30.1	50.0	93.5	20.7
Breweries (39)	1.94	3.10	6.13	32.15	2.62	9.30	20	14.3	72.6	26.6	38.7	75.0	135.2	69.2
	1.36	2.89†	7.29†	9.70†	1.66	6.06	28	8.9	86.2	37.8	62.8	101.8	189.2	220.5
Chemicals,	4.40	11.60	15.75	35.40	2.83	4.34	22	9.2	32.8	17.1	32.2	50.5	51.0	16.7
Industrial (69)	2.95	6.66	12.16	23.00	1.86	3.46	29	5-3	48.6	27.4	46.8	75.2	70.0	34.0
	2.25	2.78	8.14	13.31	1.22	2.87	35	4.2	64.6	41.8	61.9	96.9	113.1	59.8
	6.59	4.63	10.58	11.10	2.79	3.50	24	2.3	6.9	15.6	38.8	73.7	27.5	7.2
Cigais (21)	3.89	3.23	6.77	8.20	2.23	2.53	28	2.0	13.2	41.7	71.5	103.3	38.8	26.3
6,57	2.40	2.72†	6.6ot	10.76†	1.57	1.75	31	1.3	19.8	55.3	90.3	133.5	60.0	35.2
Clothing, Chil-	4.34	3.79	15.63	24.86	7-77	11.76	18	13.7	1.4	21.2		34.0	53.9	
dren's Dresses and		1.24	7.89	8.70	4.52	5.69	25	7.8	5.0	40.1		68.8	85.5	
Wash Suits (37)	1.91	0.19†	2.37†	2.65	3.10	3.80	35	5.1	16.4	68.5		114.4	104.8	
Clothing, Men's	5.08	4.68	17.57	21.91	5.80	6.42	25	10.8	2.3	20.7	32.8	51.3	39.2	6.6
and Boys' (224)	3.03	2.47	10.10	11.33	4.05	4.89	32	6.7	6.1	42.3	63.5	74.1	62.8	31.4
, , ,	2.24	0.52	2.62	2.63	2.82	3.26	49	4.1	14.7	64.8	109.6	101.6	91.2	47.3
Coats and Suits,	4.00	5.26	32.03	41.33	11.10	11.73	16	29.0	1.7	29.4		37.1	75-7	
Women's (76)	2.44	3.13	13.00	19.83	7.86	8.68	23	14.1	4.5	50.5		66.2	119.9	* * *
(, . ,	1.76	0.51	3.35	4.36	5.54	6.81	39	9.3	12.6	93.0		91.9	176.3	
	5.47	8.43	21.60	44.30	3.98	8.25	10	16.6	26.7	13.9	18.7	29.5	49.8	6.9
Confectionery (44)		6.47	13.85	22.30	2.68	5.32	15	8.2	41.5	23.5	35.8	54.0	81.1	35.6 108.6
5	2.25	1.90	6.09	8.78	2.15	3-74	24	88	56.0	38.1	96.1	79.8	129.3	
Contractors, Build-	3.06	4.22	24.51	46.53	8.49	14.00	**	**	5.9	36.5	49.3	**	**	3.9
ing and Con- struction (149)	2.01	3.76 0.95	18.19 6.27	13.86	5.56	7.87	**	**	12.g 27.0	109.1	95.1 212.7	**	**	2 <b>9.6</b> 67.4
Structum (149)					3-37	4.23		0						07.4
Cotton Cloth	4.40	13.69	31.03	48.60	3.21	4.91	10	8.3	20.2	18.7		39.8	51.4	* * *
Mills (35)	3.08 2.15	8.97 3.71	9.86	32.23	2.35	3.60 2.04	30	3.6	34.3 48.8	48.9	* * *	72.2	106,6	
														***
Cotton Goods, Converters, Non-	8.90 <b>4.46</b>	6.93	8.20	26.35 10.74	7.76 3.66	8.42 5.30	30	7.5	1.0	25.3		36.8 57.1	30.1 54.0	* * *
. 4 / 4	2.64		2.38	3.18	2.21		_	5.6	2.6	56.8			79.6	7.5
Factored (33)		0.95		-		3.31	42			-	***	75.4		
cries, and	7.74	6.16 <b>2.98</b>	11.27	19.98 12. <b>94</b>	4.95	3.89	25	7.4	4.3 11.0	23.0		35.1	32.8 <b>56.0</b>	
Bedspreads (53)	2.07	0.43	1.72	2.12	3.35	2.85	35 48	4.8	31.9	57.0	* * *	73.4	91.1	2.4.1
Presses, Rayon,		3.10	24.70	27.00	12.42	19.82	17	29.9		46.2			81.7	
Silk, and	2.93					-			3.2	83.0		43.9 78.3	121.5	
Acetate (73)	1.57	0.10	1.05	1.26	9.08 4.61	7.75	27 35	6.4	7.5 18.7	123.3		107.4	180.0	
	7.08	9.54	20,90	28.60	2.24	-	23	6.1		13.1	37.1	45.1	-	15.0
)rugs (2E)	4.08	5.40	10.69	19.20	1.84	5.40	39	3.8	31.5	23.8	54.1	60.3	33.4	45-5
)rugs (35)	3.16	0.49	0.83	0.98	1.52	1.99	48	2.6	45.4	29.3	78.1	80.5	75.6	51.6
the state of the s		6.65	24.01		3.67	5.89	22	70		22,1		60.4		7-7
lectrical Parts	3.07	4.60	8.04	33.32 16.48	2.93	4.09	29	7.9 5.6	21.4	32.7	35-4 44-4	73.7	45.4 68.3	29.6
and Supplies (64)	2.44	1.24	3.72	5.11	2.09	2.59	49	4.1	47.1	44.8	65.7	93.2	88.9	40.2
	3.74	8.22	22.85	45.05	3.57	7.42	24	13.9	21.0	18.3	27.2	37.2	59-7	8.2
oundries (102)	2.87	4-45	12.48	27.73	2.63	5-43	29	9.2	46.5	27.7	56.8	58.1	95.4	53.2
,	2.13	1.76	5.32	9.75	2.07	3.81	36	6.3	58 ,	41.9	100.6	87.6	160.5	71.2
ruits and	2.51	6.42	15.56	81.50	4.94	22.63	11	5.9	43-3	38.6	57.9	138.9	47.2	34.0
Vegetables,	1.56	2.36	7.12	19.81	3.14	9.10	19	4.1	65.7	87.4	106.6	203.0	79.5	39.8
						-	9		W 1	7 1				40

Line of Business (and Number of Reporting Concerns)	Current Assets to Current Debt	Net Profits on Net Sales	Net Profits on Tangible Net Worth	on Net	Turnover of Tangible Net Worth	Turnover of Net Working Capital	Average Collection Period	Net Sales to Inven- tory	Fixed Assets to Tangible Net Worth	Current Debt to Tangible Net Worth	Total Debt to Tangible Net Worth*	to Net Working Capital	Current Debt to Inventory	Punded Debts to Net Work- ing Capital
	Times	Per Cent	Per Cent	Per Cens	Times	Times	Days	Times	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
Fur Garments	4.24 2.45	5.06	3.10	23.45 4.43	3.63 3.14	3.51	30 37	8.5 3.9	2.9	27.7 53.2		47.2 66.5	48.8	***
(24)	1.73	0.40	1.16	2.80	2.29	2.44	84	2.4	8.6	91.6		104.0	122.0	
	5-93	6.34	19.23	32.00	4.08	5.70	24	9.1	16.7	16.9	32.2	44.5	41.1	13.2
Furniture (131)	3.24	3.68	11.20	19.10	3.01	4.14	31	7.1	30.6	29.0	54.3	68.1	63.5	20.7
	2.20	1.60	4.32	5.38	2.20	3.42	35	5.1	44.1	49.4	85.8	97.1	93.8	38.7
Hardware and	5.11	6.96	18.55	36.20	3.33	8.28	16	15.6	31.5	13.4	29.3	43.7	41.5	13.6
Tools (111)	3.20	4.93	7.82	23.50	1.85	4.78 3.63	<b>29</b> 39	7.0 3.7	<b>42.9</b> 61.4	<b>24.7</b> 40.6	51.6 87.1	<b>76.7</b>	70.9 114.8	38.4 88.7
	4.73	9.44	18.85	42.60	2.46	5.15	18	7.6	33.2	12.9	25.4	47.3	31.1	11.2
Hosiery (52)	3.05	6.65	10.41	27.90	1.74	3.90	23	5.2	44.0	19.9	52.4	70.4	73-9	29.0
	2.35	2.73	4.49	8.18	1.40	2.77	36	3.6	58.4	27.6	75.8	77.6	113.6	52.8
Leather Garments	7.21	4.06	19.44	22.74	6.19	7.17	15	18.0	4.1	12.0		21.5	21.1	
(20)	4.64	1.99	8.86	10.84	3.75	4.42	22	8.7	6.4	25.5		53.9	47.6	
	3.52	0.20†	0.75†	0.87†	1.92	2.41	37	1.6	12.0	37.1	• • •	79.2	78.5	
Luggage, Leather	7.83 3.11	2.21 1.06	5.69	5.71	5.75	6.24	27	16.0	5.3	13.5		30.6	35.5	
(26)	2.08	0.43	3.50 2.45	3.75 2.59	2.58	5·53 2.59	29 46	5.4	38.8	35.6 66.3		54·5 101.7	67.3	
	4.53	9.22	23.93	37.95	3.25	5.54	29	7.8	25.5	16.4	45.1	46.3	43.8	18.3
Machinery,	3.13	6.68	13.73	25.00	2.34	3.59	37	4.8	37.3	28.5	67.2	71.4	69.9	34.5
Industrial (301)	2.27	3.05	6.68	11.87	1.68	2.73	50	3.4	50.3	52.9	87.2	98.4	111.0	52.8
Metal Stampings	3.82	10.50	27.90	55.00	3.92	7.86	23	12.6	29.0	21.5	43.7	40.6	63.3	15.4
(69)	2.81	<b>6.52</b> 3.69	19.55	<b>36.10 2 3.60</b>	2.86	5-94	31	7-9	50.8	32.5	50.9	64.4	83.8 143.8	35-7
	,					3.72	41	5-3	64.1	43.4	79.6	91.0		49.3
Outerwear.	3.10	3.65	12.35 8.51	9.45	5.19 3·53	6.79 4.63	25	7.6	2.6	22.7 41.1		50.5 73.7	38.1 70.2	***
Knitted (55)	2.00	1.24	2.63	3.43	2.53	3.39	40	4.5	26.9	57.1		108.0	108.2	
Paints. Varnishes,	4.71	6.58	18.95	32.23	3.94	6.74	24	8.5	20.9	17.8	42.8	63.6	37.0	16.4
and Lacquers	3.00	3.83	11.05	17.90	3.04	5.03	31	6.3	31.8	30.9	56.3	80.9	63.6	26.3
(129)	2.29	1.90	6.01	8.97	2.43	3.64	42	4.8	47-7	44.9	81.6	100.6	93.8	46.3
D (6-)	4.12	10.25	18.05	55.90	2.55	7.91	16	7.4	40.1	16.5	29.9	61.6	40.9	19.8
Paper (63)	3.03	6.55 3.53	7.03	33.50	1.43	3.80	31	5-4	<b>59.2</b> 87.5	35.7	63.1	63.2	67.2	55.8 95.8
	3.52	10.00	21.30	67.20	2.92	11.09	16	13.7	26.2	19.2	37.0	,	77.6	20.2
Paper Boxes (58)	2.47	5.78	13.15	26.40	2.48	6.08	21	10.0	46.4	26.8	48.8	43.3 53.2	106.5	44.4
	1.99	3.63	9.04	20.30	1.87	4.84	28	7.5	66.3	38.0	62.5	90.0	148.7	74.1
	3.57	8.06	24.60	48.30	3.84	8.60	31	**	35.6	17.6	42.2		**	31.6
Printers, Job (65)	2.44	5.86	15.72	34-45	2.69	5.90	34	**	48.I	30.8	59.0	**	**	56.9
Danner Cille Ass	1.92	4.04	9.24	13.55		4.17	43	6		45.6	76.6			80.7
Rayon, Silk, Ace- tate Piece Goods	6.94	5.66	26.50 7-30	27.90 8.12	7.00	7.28 5-33	13	19.6	0.5	13.9 36.8		31.2 47-9	34.0 73.9	
Converters (41)	2.38	0.57	2.75	3.09	1.62	1.73	42	6.6	2.4	64.8		80.4	152.6	
Shirts, Underwear,	4.83	4.18	12.40	12.80	6.46	8.01	17	10.8	2.5	20.4	61.7	50.4	50.6	9.2
and Pajamas,	2.52	0.56	2.81	2.86	4.52	5.12	34	7.7	8.8	52.3	86.3	88.6	70.6	26.3
Men's (46)	1.75	0.14	0.59	0.98	3.10	3.12	49	3.6	25.2	84.3		135.2	108.1	39.3
Shoes, Women's	4.21	3.15	12.06	14.10	4.95	6.99	25	10.3	6.8	26.5	40.8	45.1	45.3	14.1
and Children's	2.92	0.46	6.76 3.26	g.18	3.80 2.48	3.22	32 45	8.3	17.5 22.6	34·3 64.9	50.5	67.0	71.7	22.4
		7.81	23.50	40.50	3.17	8.72	13	7.9				46.3		
toves, Ranges,	3.44	4.84	11.39	22.90	2.42	4.69	22	6.2	20.3 34.9	13.3	37.5 79.0	68.8	37.7	22.7 31.0
and Ovens (47)	2.2 3	0.28	0.67	1.22	1.86	2.74	42	3.5	48.4	48.3		117.2	89.7	101.6
		INDUS	TRIAL M	ACHINE	RY—BY SI	ZE (TA	NGIBLE	NET W	ORTH)-	MEDIANS	ONLY			
Under \$200,000	206	5.68						8.0				600	00 -	.0 .
Under \$200,000 \$200,000-\$500,000		6.44	11.30	22.12	2.14	4.52 5.30	34	6.4	37.6 39.2	21.1	70.0 84.1	67.0	89.0 75.6	48.4
Over \$500,000		7.62	14.00	23.67	2.11	3.20	40	4.2	37.1	30.8	65.9	72.2	63.2	33.2
														1

#### FOOTNOTES and DEFINITIONS OF TERMS

 Computed only for those lines of business in which a reasonable number of concerns had outstanding long-term liabilities.

\*\* Building contractors do not have inventories in the credit sense of the term. They only carry such materials as lumber, bricks, tile, cement, structural steel, and building equipment to complete jobs on which they are working. They have no customary selling terms, each contract being experient of the customary selling terms, each contract being a service of the customary selling terms, each contract ing equipment to complete jobs on which they are work-ing. They have no customary selling terms, each contract being 2 special job for which individual terms are arranged.

2 lob printers do not have inventories in the credit sense of the term. They only carry current supplies such as paper, ink, binding materials, and lead for type-setting. + Loss.

COLLECTION PERIOD—The number of days that the total of trade accounts and notes receivable (including assigned accounts and discounted notes, if any) less reserves for bad days that the connected with the annual net debts, represents when compared with the annual net credit sales. Pormula—divide the annual net credit sales by 365 days to obtain the average credit sales per day.

Then divide the total of accounts and notes receivable

(plus any discounted notes receivable) by the average credit sales per day to obtain the average collection period. CURRENT ASETS—TOtal of cash, accounts, and notes receivable for the sale of merchandise in regular trade quarters. ters less any reserves for bad debts, inventory less any reserves, listed securities when not carried in excess of market, and United States Government securities.

CURRENT DEBT—Total of all liabilities due within one year from statement date including current payments on serial notes, mortgages, debentures, or other funded debts. This item also includes current reserves such as gross re-serves for Federal income and excess profits taxes, reserves for contingencies set up for specific purposes, but does

not include reserves for depreciation.

Fixed Assets—The sum of the depreciated book values of real estate, buildings, leasehold improvements, fixtures,

turniture, machinery, tools, and equipment.

Fundas Dist-Mortgages, bonds, debentures, gold notes, serial notes, or other obligations with maturity of more than one year from the statement date.

INVENTORY—The sum of raw material, material in process, and finished merchandise. It does not include supplies, NET PROFITS-Profit after full depreciation on buildings, machinery, equipment, furniture, and other assets of a fixed nature; after reserves for Federal income and excess

profit taxes; after reduction in the value of inventory to cost or market, whichever is lower; after charge-offs for had debts: after all miscellaneous reserves and adjustments; but before dividends or withdrawals.

NET SALES—The dollar volume of business transacted for 55 days net after deductions for returns, allowances, and iscounts from gross sales.

NET SALES TO INVENTORY-The quotient obtained by dividing the annual net sales by the statement inventory. This quotient does not represent the actual physical turnover which would be determined by reducing the annual net sales to the cost of goods sold, and then dividing the resulting figure by the statement inventory.

NET WORKING CAPITAL-The excess of the current assets

NET WORKING CAPITAL—The excess of the current assets over the current debt.

TANGIBLE NET WORTH—The sum of all outstanding preferred or preference stocks (if any) and outstanding common stocks, surplus, and undivided profits, less any intragible items in the assets, such as good-will, trademarks, patents, copyrights, leaseholds, mailing lists, treasury stock, organization expenses, and underwriting discounts and expenses.

TURNOVER OF TANGIBLE NET WORTH—The quotient obtained by dividing annual net sales by tangible net worth.

TURNOVER OF NET WORKING CAPITAL—The quotient obtained by dividing annual net sales by net working capital.



PIERSON PHOTOGRAPH

PRODUCTION PRICES . . . . TRADE . . . .

There was a moderate rise in the general level of business activity during November. Physical industrial production increased with the end of the strikes in coal and steel; wholesale and retail trade rose seasonally; employment and income continued to be close to recent high levels; wholesale commodity prices advanced slightly.

HE BROAD bases for economic stability—employment, purchasing power, and the continued strong consumer demand for many types of goods and services—were very little changed by the strikes in coal and steel during October. Most observers agreed that, with the resumption of normal operating levels in those two fields, total industrial production would recover quickly from the moderate drop which took place as a result of the work stoppages.

Over-all physical output, as measured by the Federal Reserve Board's Index of Physical Production (1935-1939=100), fell 6 points in October to 166. Although some dislocations, chiefly due to shortages of certain types of steel and steel parts, may continue for several months, total output during the remainder of 1949 is expected to be close to the third-quarter average of 168.

The latest weekly production figures (see page 26) indicated that over-all industrial activity during the first half of November was fast approaching the August and September levels. Steel ingot production, which had fallen to less than 10 per cent of capacity during the strike, was back up to 78 per cent of capacity during the week ended November 26. Bituminous coal output in the week ended November 19 totalled 14.0 million net tons, as compared with the 1.8 million net tons produced in the week ended October 1.

Although shortages of certain types of component parts caused automobile production to decline moderately during the first half of November, output continued to compare favorably with a year ago. More vehicles were produced in the first ten months of 1949 than were produced in any other full year. The previous record was estab-

lished in 1929 when 5,358,000 cars, trucks, and buses were produced. Output through October 1949 was slightly over 5,400,000.

Comployment Unemployment rose in October for the first time since July. The increase was contra-seasonal and was due probably to the coal and steel strikes. Total employment was 59.0 million persons in October, less than 1 per cent below the September level of 59.4 million persons employed.

The number of nonfarm workers increased 36,000 from September to October. Agricultural employment dropped 448,000 to 7.7 million persons.

Unemployment rose 225,000 during the period to a total of 3.6 million. At this level it represented a little less than 6 per cent of the entire civilian labor force of 62.6 million persons. These

1 9 4 9

# Weekly Signposts of Activity

		0				
WEEKLY	Averages 1948	SELECTED BUSINESS INDICATORS	LATEST WEEK	PREVIOUS WEEK	YEAR Ago	WEEK ENDED
102	170	Steel Ingot Production	144	106	179	Nov. 26
76	111	Bituminous Coal Mined	140	71	123	Nov. 19
69	101	Automobile Production Thousand Automobiles	110	111	113	Nov. 19
31	53	Electric Power Output	56	54	56	Nov. 19
65	82	Freight Carloadings Ten Thousand Cars	64	58	87	Nov. 12
109	304	Department Store Sales	316	315	346	Nov. 12
77	165	Wholesale Prices	152	152	164	Nov. 15
74	211	Bank Debits Hundred Million Dollars	208	225	206	Nov. 16
76	285	Money in Circulation	274	275	282	Nov. 16
219	101	Business Failures	183	222	126	Nov. 17

Sources: Amer. Iron & Steel Inst.; U. S. Bureau of Mines; Automotive News; Edison Electric Inst.; Amer. Assoc. of Railroads; Federal Reserve Board; U. S. Bureau of Labor Statistics; Dun & Bradstreet, Inc.

Industrial Production



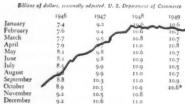
\* Approximation: figure from quoted source not available

#### Employment Millions of Persons: U. S. Bureau of the

			of the century	
	1946	1947	1948	1949
January	51.0	55-4	57.1	57-5
February	51.2	55-5	57-1	57.2
March	52.5	56.1	57-3	57.6
April	54-1	56.7	58.3	57.8
May	54.8	88.2	£8.	98.7
June	Sha	60.1	61.3	19.6
July	57.8	60.1	61.6	59-7
August	57-7	59.6	61.2	59.9
September	57.0	58.9	60.3	59-4
October	57.0	59.2	60.1	59.0
November	57.0	58.6	59-9	33.0
Documber	-6 -		277	

source not available. Includes all civilian workers.

#### Retail Sales



Approximation: forum from quoted source and quillelle

#### Wholesale Commodity Prices



\* Approximation; figure from quoted source not available

#### Consumers' Price Index

To	dex: 1935-1939	=100; U. S. Burea	n of Labor Statist	ics
	1946	1947	1948	1949
January	129.9	153.3	168.8	170.9
February	129.6	153.2	07.5	169.0
March	130.2	156.3	166.9	100.
April	131.1	7 30.2	169.3	169.7
May	131.7	156.0	170.5	169.2
lune	133/5	157-1	171.7	169.6
July	1 1.2	158.4	173.7	168.5
August	144-1	160.3	874.5	168.8
September	145.9	163.8	874-5	169.6
October	148.6	163.8	873.6	170.10
November	152.2	164.9	172.2	
December	153.3	167.0	171.4	

\* Approximation; figure from quoted source not available.

#### **Industrial Stock Prices**

	Monthly Aver	age of Duly Indi	ex: Don-lones	
	1946	1947	1948	1949
January	199.00	876.10	176.26	179.75
February	199.46	181.54	168.47	174-46
March	194-37	176.66	169.94	175.87
April	205.81	171.28	180.05	175.65
May	206.63	168.67	186.38	174-03
June .	20 32	173.76	191.05	165.59
July	202.7	183.51	105	173-34
August	199.44	18908	181.77	179.24
September	172.7	6.82	180.33	180.73
October	169.48	181.92	185.19 .	186.47
November	168.94	181.42	176.60	
December	274.28	170 18	2005 22	

Based on closing prices of 30 industrial stocks.

estimates of employment figures are made by the U.S. Bureau of the Census and are based upon samples taken in the first week of each month. Consequently, the October figures do not reflect the full impact upon employment of the coal and steel strikes.

Wholesaling The approach of the holiday season prompted many merchants to increase their orders during October and the first part of November. While total wholesale volume rose fractionally, it continued to be moderately below the level of a year ago. Buyer attendance at many of the nation's wholesale marts decreased noticeably in October. There was a slight drop in the number of long-term commitments.

After rising seasonally in the first half of October, wholesale apparel volume decreased fractionally in the latter part of the month partly reflecting a levelling off of retail apparel volume in some areas. The possibility of eventual shortages gave impetus to the buyer demand for household appliances in October. There were many re-orders for holiday merchandise. Furniture demand rose moderately.

Consumer spending Retailing decreased slightly in October, but rose moderately in early November. Total retail dollar volume for October was \$11.1 billion; this compared with the \$11.5 billion spent by consumers in October of last year. The largest drops in retail volume occurred in industrial areas of the Middle West, largely reflecting the impact of labor disputes in those areas. Unseasonally warm weather in many parts of the country also affected adversely the consumer response to promotions of Fall and Winter merchandise.

Retail apparel volume rose slightly in October but was moderately below the level of a year ago. Consumer interest was largely centered on women's dresses, skirts, blouses, and accessories. There was a slight dip in the demand for children's and men's apparel. Consumer purchases of shoes were approxi-

mately even with the level of the preceding month.

The retail volume of home furnishings and furniture increased slightly in October and it rose moderately above the level of a year ago. In response to extensive promotions, there were frequent purchases of decorating materials, bedding, and incidental furniture. Television sets continued to sell well. The demand for fuel and heating equipment rose seasonally.

Foreign Frade The dollar volume of United States imports and exports both rose during September. General imports totalled \$530.5 million, an increase of 8 per cent from the previous month. At this level they were approximately 6 per cent below the monthly average for the first six months of 1949 and 11 per cent below the 1948 monthly average. The sharpest rise in September imports was in textile fibers and manufactures.

Total United States exports of domestic and foreign merchandise rose slightly less than 3 per cent to \$904.3 million in September. Increases were largest among inedible vegetable products, particularly unmanufactured tobacco and raw cotton. Total September exports were 19 per cent below the monthly average for the first half of 1949 and 14 per cent below the 1948 monthly average.

Wage and Prices

The average weekly wage of factory workers rose in September to \$55.64, up nearly one dollar from the August level, and the second highest on record. The previous peak had been established in December 1948 when the average weekly pay envelope contained \$56.14.

The increase was due mainly to longer working hours. The average work week in September was 39.6 hours compared with 39.1 hours in the previous month. More overtime work was responsible for the lengthening of the work week in most instances. The work week was either the same or

# Compass Points\_

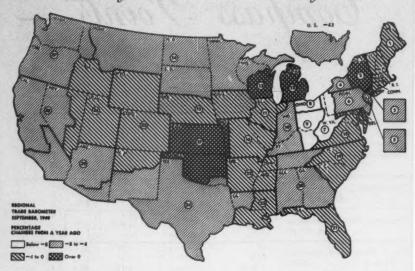
		First Quarter	Second Quarter				
	Year	Monthly Average	Monthly Average	July	Aug.	Sept.	Oct.
Employment, total Million persons	1947 1948 1949	57.3 58.4 58.9	59.4 60.3 59.7	60.1 61.6 59.7	59.6 61.2 59.9	58.9 60.3 59.4	59.2 60.1 59.0
Unemployment	1947 1948 1949	2.4 2.4 3.0	2.3 2.1 3.4	2.6 2.2 4.1	2.1 1.9 3.7	1.9 1.9 3.4	1.7 1.6 3.6
Farm Income Billion dollars	1947 1948 1949	2.1 2.1 2.1	2.1 2.2 2.0	2.6 2.7 2.2	2.6 2.7 2.4	3.1 3.1 2.6	3.8 3.7
Consumers' Credit Outstanding Billion dollars	1947 1948 1949	10.1 13.2 15.5	11.4 14.7 16.1	11.5 14.7 16.2	11.5 14.9 16.5	11.9 15.2 16.8	12.3 15.5
Hourly Earnings of Industrial Workers	1947 1948 1949	1.18 1.31 1.40	1.22 1.32 1.40	1.25 1.36 1.41	1.26 1.37 1.40	1.27 1.39 1.41	1.27
Weekly Earnings of Industrial Workers	1947 1948 1949	47.96 52.79 55.15	49.22 53.09 54.14	49.84 53.97 54.67	50.07 55.06 54.66	51.31 55.16 54.64	51.72 55.60
Manufacturers' Sales	1947 1948 1949	16.3 18.5 18.2	16.9 18.9 17.7	17.1 19.0 17.1	16.8 19.7 18.7	17.6 19.9 19.2	18.2 19.0
Manufacturers' Inventories  Billion dollars	1947 1948 1949	26.3 30.3 34.3	28.1 31.6 33.6	28.6 32.6 32.4	28.9 32.8 31.7	29.0 33.4 31.1	29.2 33.5
Wholesalers' Sales Billion dollars	1947 1948 1949	7.6 8.3 7.8	7.5 8.4 7.5	7.7 8.6 7.1	7.4 8.5 7.7	8.0 8.5 7.6	8.4 8.1
Wholesalers' Inventories Billion dollars	1947 1948 1949	7.3 8.7 9.4	7.9 8.8 9.2	8.2 9.2 9.1	8.5 9.4 9.2	8.6 9.6 9.2	8.6 9.7
Retailers' Sales Billion dollars	1947 1948 1949	9.4 10.7 10.7	9.8 10.8 10.7	9.9 10.9 10.5	9.9 11.0 10.6	10.3 11.0 10.8	10.3 10.9
Retailers' Inventories	1947 1948 1949	11.7 14.0 14.6	12.0 14.2 14.3	12.1 14.4 13.9	12.0 14.5 13.9	12.2 14.9 14.4	12.5 14.9
Physical Production Index Adjusted 1935-1939=100	1947 1948 1949	189 193 188	185 191 174	176 186 162	182 191 170	186 192 172	191 195 166
Freight Carloadings.  Millions of cars	1947 1948 1949	3.8 3.3 2.9	3.7 3.6 3.1	4.2 4.2 3.4	3.6 3.6 2.9	3.6 3.5 2.7	4.7 4.6 2.4
Building Permits, 120 Cities Million dollars	1947 1948 1949	155 229 213	189 288 286	223 275 241	227 296 279	245 284 311	261 247 310
Commercial and Industrial Failures Number	1947 1948 1949	231 417 700	313 431 827	299 420 719	287 439 810	292 398 732	336 461 802
Liabilities of Failures Million dollars	1947 1948 1949	14.5 18.7 48.1	17.5 13.8 29.5	37.1 13.9 21.8	14.9 21.4 31.2	10.0 20.7 20.6	21.3 101.1 23.9

The figures above bring up-to-date some of the series included in "The Compass Points of Business" quarterly supplement to the November Dun's Review. The next complete quarterly supplement will appear in the February issue of this magazine.

The figures for manufacturers' sales and inventories have been revised back to 1942; wholesalers' sales and inventories have been revised back to 1939; and retailers' sales and inventories have been revised back to 1943. In addition, all figures are now adjusted for seasonal variation.

The current revisions are not strictly comparable with data for years prior to revision dates.

# Regional Trade Activity



REGIONAL TRADE BAROMETERS FOR 29 REGIONS
(1935-1939 = 100)

		-% Change	from-			-% Change	e from-
REGION:	Sept. 1949	Sept. 1948	Aug. 1949	Region:	Sept. 1949	Sept. 1948	Aug. 1949
United States	282.3	4.0	- 0.8	15. Iowa and Nebraska	291.1	1.9	2.8
1. New England	214.3	- 2.5	+ 4.3	16. St. Louis	271.2	- 3.1	- 3.1
2. New York City	218.3	- 4.1	- 1.4	17. Kansas City	288.0	+ 0.9	- 0.3
3. Albany, Utica, and Syracuse	243.6	+ 3.3	+ 1.0	18. Maryland and Virginia	283.8	- 2.3	+ 6.5
4. Buffalo and Rochester	280.8	- 5.6	+15.3	19. North and South Carolina.	321.6	- 3.2	- 3.6
5. Northern New Jersey	185.2	4.2	- 4.0	20. Atlanta and Birmingham	376.1	- 4.8	+ 1.3
6. Philadelphia	254.1	- 4.0	+ 2.3	21. Florida	376.4	- 3.8	+12.6
7. Pittsburgh	254.6	-10.5	+11.3	22. Memphis	338.2	- 0.6	- 8.2
8. Cleveland	267.3	- 8.0	- 4.6	23. New Oricans	341.4	- 4.0	+ 0.6
9. Cincinnati and Columbus	269.5	-12.4	- 9.7	24. Texas	377-5	- 4.1	+ 3.1
to. Indianapolis and Louisville	329-4	- 4.0	+ 0.1	25. Denver	280,6	- 3.2	- 2.7
11. Chicago	265-4	- 1.6	+ 5.9	26. Salt Lake City	295.1	- 1.5	+ 0.7
12. Detroit	270.0	+ 0.6	-14.4	27. Portland and Scattle	303.8	- 6.8	- 6.0

HE LEVEL of consumer buying in the United States as measured by the Dun's Review Regional Trade Barometers rose fractionally in October (preliminary) after seasonal adjustments. The October barometer of 282.5 (1935-1939=100) is also adjusted for the number of business days in the month. It compared with the 306.8 barometer of October a year ago.

The final index for September was 282.3, down 0.8 per cent from the preceding month and 4 per cent below the level of a year ago.

The September barometers in all but four of the 29 regions were below the corresponding 1948 figures; monthly increases occurred in more than half of the regions. There was considerable difference between regions in the extent and direction of monthly and yearly changes.

The sharpest changes from a year ago

were a decline of 12.4 per cent in the Cincinnati and Columbus Region (9) and an increase of 3.3 per cent in the Albany, Utica, and Syracuse Region (3). Comparisons with the previous month varied from a drop of 14.4 per cent in the Detroit Region (12) to a rise of 15.3 per cent in the Buffalo and Rochester Region (4).

The highest barometers, compared with the 1935-1939 average, were generally for regions in the Southern area. The lowest occurred chiefly in the Northeastern part of the country. Large and continuing differences among the barometers resulted to some extent from wartime population shifts. While all the barometers were well above the 1935-1939 average of 100, among the 29 regions there was a marked relationship between the increases in the barometers and the population and industrial growths that were the result of wartime influences.

longer in September than in August in all industries except stone, clay, and glass products and leather and leather products.

Living costs were slightly higher in mid-September than in the middle of the previous month. Average retail prices of goods and services for the moderate income urban family, as reflected by the Consumers' Price Index of the U. S. Bureau of Labor Statistics, increased one-half of 1 per cent. This raised the index in September to 169.9 per cent of the 1935-1939 average; this was about 3 per cent below the September 1948 level.

Wholesale commodity prices generally fluctuated within a narrow range during October. Most wholesale price averages dipped slightly for the first half of the month and rose about the same amount during the remainder of the period. The weekly wholesale price index of the U. S. Bureau of Labor Statistics (1926=100) was at 152.8 in the week ended November 8, slightly above the October average of 152.3. The Dun & Bradstreet Wholesale Food Price Index, after dropping to a low for the year of \$5.57 on October 11, was at \$5.74 on November 8.

Consumer credit outstanding, which has been rising steadily since the end of World War II, was at a new peak of \$16.8 billion at the beginning of October. Up 2 per cent from the previous month, total credit outstanding was 10 per cent higher than on the similar date a year ago. Most of the increase was due to a rise in installment buying.

Finance Trading volume on the New York Stock Exchange in October exceeded one million shares in every full day's session except one. The total volume for the month was nearly 29 million shares, the highest for any month since June 1948 and for any October since 1946.

Security prices generally moved higher during the month with many issues reaching new highs for the year. The Dow-Jones average of 30 industrial stocks which rose from 181.98 on October 1 to 180.54 on October 31,

averaged 186.47 over the whole month.

In contrast to the steadily increasing activity in the stock market, the volume of bond dealings on the New York Stock Exchange in October, although up slightly from September, was the smallest for any corresponding month since 1913.

Business failures in-Failures creased 10 per cent in October to 802 from 732 in September. Although exceeded in four earlier months this year, casualties were more numerous than in any other October in eight years. Dun's Failure Index, which projects the monthly failure rate to an annual basis and adjusts for seasonal variation, increased for the third consecutive month, rising to 40. failures per 10,000 concerns in operation. The Failure Index was at 24 in October a year ago and at 67 in the corresponding month of 1940.

Liabilities in October rose slightly to \$23,894,000 but remained considerably below the February-June 1949 level. The volume of liabilities this October outweighed those in the similar month of any other year since 1935 except October 1948.

Approximately one-half of the casualties had liabilities of \$5,000 to \$25,000. In all size groups except the very small (under \$5,000), more businesses failed than in the preceding month. A general increase from 1948 prevailed. While exceptionally large casualties with liabilities of \$100,000 or more increased only slightly, small failures with liabilities of less than \$5,000 climbed to more than twice their last year's total, 178 as against 78. Among medium-sized concerns, the increase in failures from 1948 ranged between 63 and 86 per cent.

#### WHOLESALE FOOD PRICE INDEX

The index is the sum total of the price per pound of 31 foods in general use. It is not a cost-of-living index.

and the Benefitt	2001 It 10 1101 a Ct	ost-or-name muca.
Latest Weeks	Year Ago	1949
Nov. 22. \$5.74	Nov. 23\$6.38	High Jan. 4\$6.12
Nov. 15., 5.68	Nov. 16., 6.37	Low Oct. 11\$5.57
Nov. 8. 5.74	Nov. 9., 6.39	1948
Nov. 1., 5.69	Nov. 2., 6.36	High July 13 \$7.36
Oct. 25., 5.72	Oct. 26 6.47	Low Dec. 14. 6.21

#### DAILY WHOLESALE PRICE INDEX

The index is prepared from spot closing prices of 30 basic commodities (1930-1932=100).

Week					4		
Endi	ng	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
Nov.	19	245.18	244.70	244.90	244.37	244.47	244.99
		245-47	Holiday	245.61	245.36	Holiday	245.17
Nov.	5	242.31	242.72	244.00	245.58	246.41	245.95
Oct.	29		244.25	244.27	243.20	243.01	243.18
Oct.	22	241.41	241.71	242.59	242.96	242.81	242.25

Failures are usually heaviest among the newer concerns. Failures of postwar businesses accounted for two-thirds of the October casualties. Businesses started prior to the war and those started during the war each comprised one-sixth of the total. Only one out of eight failing concerns was in its first year of operations.

Trade and construction failures rose during the month; retail failures advanced to 364 while wholesale and construction failures reached their highest levels since 1940 and 1934 respectively. One-third of the wholesale casualties occurred in the food trade where they were the heaviest since 1941. The rise in construction failures was concentrated in subcontracting, with plumbing and heating, painting, and electrical contracting claiming over one-half the total.

Contrary to the general rise, failures in manufacturing and commercial service declined in October, falling to 181 and 58 respectively. Decreases prevailed in most manufacturing industries; the only increases occurred in mining, chemicals, and iron and steel.

The increase from 1948 was sharpest in construction where over twice as many concerns failed as last year; the gain was almost as marked in retailing. Manufacturing and wholesaling casualties rose more moderately, 62 and 58 per cent, while commercial service failures were only 12 per cent above the previous October.

Regionally, the upturn in casualties between September and October was centered in the South Atlantic States (principally Virginia, North Carolina, and Florida), in the East South Central States (Tennessee), in the East North Central States (largely Illinois and Wisconsin), and in California.

#### BANK CLEARINGS (Thousands of dollars

	OctoberI		%	
	1949	1948	Change	
Total 24 Cities	27,468,408	29,111,954	5.6	
New York	28,585,407	29,751,191	-3.9	
Total 25 Cities	56,053,815	58,863,145	-4.8	
Average Daily	2,242,153	2,354,526	-4.8	

#### NEW BUSINESS INCORPORATIONS

Geographical Regions	Sept. 1949	Sept. 1948	Nine 1949	Months 1948	
New England	440 2,313	405 2,268	4,159 21,666	4,893	
East North Central	1,137	1,307 361	10,885	13,226	
South Atlantic	996	927	9,005	10,170	
West South Central	230 443	242 461	2,130 4,196	2,453 5,054	
Mountain	217	266	2,289	2,949	
Pacific	713	693	6,133	8,022	
Total U. S	6.867	6,930	64,002	75,581	



Users everywhere tell of the same results! From almost every type of industry—on an amazing range of jobs—come daily reports of production increases and cost reductions that make Multipress a quick, self-liquidating investment. One that'll amortize its cost within one year!

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Company

#### **BUSINESS IN MOTION**

## To our Colleagues in American Business ...

The brewing industry has been in an expansion and modernization stage since the end of the war made copper freely available to it once more. New breweries are being built, and older ones enlarged, in order to meet the increasing demands of the public. As a result, the coppersmiths who fabricate brewing equipment have given Revere large orders for copper sheet and copper tube, which they turn into such items as brew kettles, mash tubs, lauter tubs, wort tanks,

cookers, water heaters, and piping. Because the brewing of beer is necessarily done on a large-volume basis, the equipment is correspondingly huge. Orders for several hundred thousand pounds of copper are not unusual.

Though the brewing people thus are

large users of Revere copper, they are not direct customers; the Revere customer is the coppersmith who fabricates to brewers' specifications. Nevertheless, Revere keeps a friendly hand outstretched to the brewer. Lately we have talked with quite a few brewmasters, and have found the same outstanding loyalty to copper that existed before the war and which has, in fact, been a feature of the brewing industry from its beginnings centuries ago. One master brewer, for example, said: "In planning the mammoth new installations for our \$12,500,000 expansion program, copper was chosen because it is the most ductile

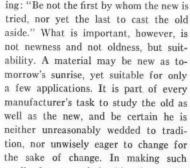
metal for the fabrication of speciallydesigned brew kettles and related equipment; in keeping with time-honored traditions."

Brewing is, in fact, a remarkable mixture of tradition and science. Beer and ale are among the oldest of man's beverages, and all the evidence indicates that copper, probably man's first metal, has been used since the beginning. This ancient art relied upon the rule of thumb, experience, for centuries. It is now under

> a large measure of scientific control as well. the brewmasters' high talents being supported and confirmed by laboratory checks of materials. It is therefore especially gratifying to Revere that copper continues to be the metal preferred by brewers.

There is an old saying: "Be not the first by whom the new is

manufacturer's task to study the old as tion, nor unwisely eager to change for studies he can and should call upon his suppliers, who, like Revere, are always glad to provide the latest and fullest in-



#### REVERE COPPER AND BRASS INCORPORATED Founded by Paul Revere in 1801

formation about their materials.

\* \* \*

**Executive Offices:** 230 Park Avenue, New York 17, N. Y.

Among individual States, California had the largest total reporting 143 as compared with New York's 117. More casualties occurred than last year in all regions except the New England and Mountain States. In most areas about twice as many concerns succumbed as in October 1948; the increase was even sharper in the South Atlantic States where failures were three times as heavy as a year ago.

Non-metropolitan districts accounted entirely for the October increase in mortality. They reported 523 failures, a total exceeded only twice so far this

#### THE FAILURE RECORD

		Uct.	. Sept.	
		1949	1949	1948 Chge.1
	Dun's Failure Index*			
	Unadjusted	35.7	32.7	21.1 + 69
	Adjusted	39.7	38.5	24.0 + 69
	Number of Failures	802	732	461 + 74
	NUMBER BY SIZE OF DEBT			
	UNDER \$5,000	178	180	78 + 128
	\$5,000-\$25,000	302	366	240 + 63
	\$25,000-\$100,000	188	148	101 + 86
-	\$100,000 and over	44	38	42 + 5
ĺ	NUMBER BY INDUSTRY GROUP	PS		
ı	Manufacturing	181	183	112 + 62
1	Wholesale Trade	100	82	69 + 58
	Retail Trade	364	329	188 + 94
	Construction	90	71	40 +125
	Commercial Service	58	67	52 + 12
		(Liab	ilities in	thousands)
	Current	\$23,894	\$20,598\$	101,060 - 76
	Total	24,129	20,647	103,175 - 77

\* Apparent annual failures per 10,000 enterprises, former-ly called Dun's Insolvency Index. y called Dun's Insolvency Index. † Per cent change of October 1949 from October 1948.

#### FAILURES BY DIVISIONS OF INDUSTRY

(Current liabilities in		mber-	-Liab	ilities—
thousands of dollars)	1949	1948		1948
MINING, MANUFACTURING	1,933	1,197	127,381	92.379
Mining-Coal, Oil, Misc	64	16	7,280	1,866
Food and Kindred Products	237	142	19,211	10,579
Textile, Products, Apparel	280	128	14,705	3,748
Lumber, Lumber Products	324	216	16,926	7,703
Paper, Printing, Publishing.	82	50	5,067	2,853
Chemicals, Allied Products.	64	40	2,337	3,135
Leather, Leather Products	79	54	3,885	2,006
Stone, Clay, Glass Products.	43	39	4,344	2,182
Iron, Steel, and Products	127	65	9,346	8,349
Machinery	234	188	23,092	31,680
Transportation Equipment	70	36	5,842	3,006
Miscellaneous	329	223	15,356	15,272
WHOLESALE TRADE	923	555	37,335	21,192
Food and Farm Products	263	148	11,223	7,810
Apparel	49	17	2,187	538
Dry Goods	23	15	585	454
Lumber, Bldg. Mats., Hdwr.	96	47	5,047	1,774
Chemicals and Drugs	43	29	1,375	556
Motor Vehicles, Equipment.	57	30	1,902	1,117
Miscellaneous	392	269	15,016	8,943
RETAIL TRADE	3,502	1,760	59,060	32,116
Food and Liquor	766	444	9,570	5,489
General Merchandise	140	69	1,882	1,165
Apparel and Accessories	505	257	8,023	4,151
Furniture, Furnishings	399	168	8,155	3,020
Lumber, Bldg. Mats., Hdwr.	229	129	4,310	2,223
Automotive Group	352	159	6,639	5,425
Eating, Drinking Places	641	333	12,932	7.474
Drug Stores	91	37	1,914	637
Miscellaneous	379	164	5,635	2,532
Construction	675	338	21,069	12,258
General Bldg. Contractors	270	134	12,297	7,319
Building Sub-contractors	377	181	6,474	3,507
Other Contractors	28	23	2,298	1,432
COMMERCIAL SERVICE	611	411	85,261	96,474
Transportation	193	152	73,089	89,464
Misc. Public Services	18	9	4,871	244
Hotels	24	19	1,040	2,001
Cleaning, Dyeing, Repairs	87	41	1,611	916
Laundries	39	22	951	382
Undertakers	8	4	149	53
Other Personal Services	47	37	581	361
Business, Repair Service	195	127	2,969	3,053

#### HERE and THERE in BUSINESS

WHAT'S NEW AS OBSERVED BY THE AGENCY'S REPORTERS

Lock—The tiny tell-tale click in the tumblers, which has enabled clever thieves equipped with stethoscopes to feel out a combination sequence, is eliminated in the combination lock used in the new line of Remington-Rand "Safe Files."

Invented by Harry C. Miller, Washington, D. C., lock expert, the new lock is encased in a highly tempered steel box to provide additional security by discouraging drilling.

High-Speed Printing—A printing press recently developed by Crawford Incorporated, Providence, R. I., will do gravure, gravure offset, and letterpress printing in from one to five colors without re-runs or separate drying. While the top speed of this press has not been determined, it is said to have produced satisfactory gravure printing at a speed of more than 1,500 feet a minute. Its nominal speed is 750 feet per minute.

The press is intended primarily for big users of labels, such as manufacturers of cigarettes, processors of foods and beverages, and so on. In a recent labeling demonstration the press produced 4 by 6-inch labels in color and varnished while running at a speed of 600 feet per minute, turning out 9,000 labels a minute or 540,000 an hour.

The total length of the press, when composed of units for printing in five colors, is 30 feet. A primary advantage

of this press is that it requires but a matter of minutes to make ready.

It will print on paper, tissue, cellophane, pliofilm, or other printing surfaces. Use of a photo-electric eye permits perfect registry.

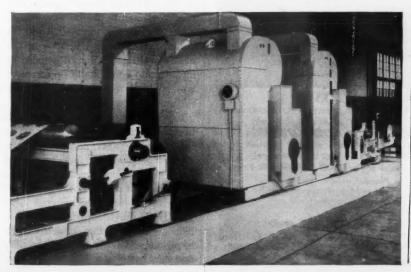
To avoid rancidity in foods and other products the ink on the wrappers is dehydrated, after printing, by hot air—a system used in the dehydration of foods.

Domestic and export sales of the Crawford press are being handled by the Associated Representatives of America, New York City.

Sales Spur—To boost the multiple purchase of dry groceries, canned goods, and other items, plastic tags for the multiple unit pricing of articles have been devised by The Hopp Press, Inc., New York, price-marking specialists. These are designed to snap into place in the Hopp tamperproof aluminum moldings described in the July Dun's Review.

Assortments of multiple unit pricing tickets are provided, containing all the combinations that the average self-service store might use. Each plastic

In the Crawford press the ink is dehydrated in the enclosed units immediately upon printing, permitting multi-color printing, varnishing, and so on in one continuous operation. The press shown below is a two-color unit, but it may be obtained in one unit for single color work and up to four units added.





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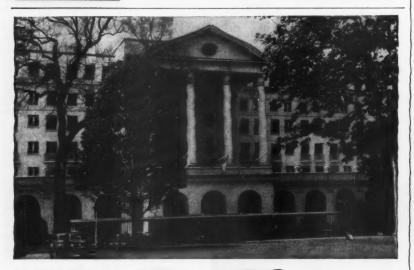
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value of The Greenbrier's sports facilities.

Peaceful, quiet walks. Superb golf—Sam Snead and Gary Nixon are pros. Trail riding. All-weather swimming pool. Famous therapeutic baths.

WHITE SULPHUR SPRINGS
WEST VIRGINIA
E. T. Lawless, Vice Pres. Eugene Voit, Manager

ticket displays a single and multiple price combination such, for example, as "8 cents each—3 for 22 cents."

The Hopp Press reports that a series of tests have shown how the penny savings from multiple purchases have jumped the sales of popular products.

Rapid Counting—A machine which counts accurately at speeds of up to 1,000 a minute such items as checks, currency, tickets and coupons, labels and cards, stubs and receipts, and sales and production slips has been introduced by Pitney-Bowes, Inc., Stamford, Conn.

The Model TIC "Tickometer" is a production development of an earlier custom-built machine made in limited quantities for special applications, principally by transit and amusement companies. It is suitable for use by banks, department and specialty stores, transportation companies, amusement and sporting enterprises, publishers, news distributors, food and drug manufacturers, bakers, and brewers.

Gas Plating—A new method of metal coating by means of gas plating has been originated by the Commonwealth Engineering Company of Ohio, Dayton. This takes advantage of the fact that certain metallic compounds may be vaporized and that they have definite temperatures for decomposition.

Such decomposition is controllable and can be made to produce metallic films like those obtained by electroplating and other processes. Thus when the material to be plated is placed in a controlled atmosphere and heated under regulated conditions, depositing of metal takes place. The size and the nature of the goods does not matter as metallic and non-metallic objects plate with equal ease. Either inner or outer surfaces may be plated.

It is possible to deposit o.oor-inch films of metal in 3 to 5 seconds. The three primary factors in controlling the metal deposit are: the concentration of the metal compound in the carrier gas, rate of flow of plating atmosphere, and the temperature of the material to be plated. Through adjusting these controls the operator can regulate density of plate, speed of plate, and its ductility and thickness.

Any metallic compound which may be vaporized and which has a definite decomposition temperature can be employed in the process. Included are such materials as carbonyls, nitrosyls, hydrides, salts, and metal organics. Nickel carbonyl, for example, may be readily vaporized in carrier gases such as carbon dioxide, nitrogen, or hydrogen. Its decomposition point is approximately 356 degrees Fahrenheit.

Microfilming—A new 14-inch "Flofilm" duplex camera manufactured by Diebold, Inc., Canton, Ohio, microfilms copy up to 14 inches wide by any length, using either 16 or 35 mm. film. It photographs the two sides of a document simultaneously side by side or a double row of images up one side of the film and down the other.

Fourteen-inch records may be copied on both sides side by side at about a 26 to 1 reduction. Built for handling such papers as checks, ledgers, contracts, legal paper, and general records, the camera can be loaded from a seated position and operates at a speed of 150 feet of paper a minute. An endorsing attachment can be added.

Oily Deposits—Disastrous fires may result from oily deposits, warns the Associated Factory Mutual Fire Insurance Companies, citing a total of 311 fires from this cause during a five-year period which resulted in nearly \$1,000,000 worth of damage.

Such deposits may originate from the condensation of air-borne oil vapors on cold surfaces, covering a considerable building area, while others are direct, localized deposits on floors, machinery, and other surfaces resulting from leakage, spillage, faulty lubrication, and other causes.

As dust, lint, or other finely divided combustibles are usually combined with the oil deposits, a quick burning fuel is provided which enables a fire to start from small sparks or other ignition sources which would not cause fires if the surfaces were clean. Such a fire spreads rapidly.

Automatic sprinklers have not been provided in many locations, the Association points out, because the construction is largely if not wholly non-combustible and because there appears to be little or nothing to burn in the occu-



A FLASH OFFICE FIRE ... VITAL RECORDS BURNED TO A CRISP, IN SECONDS ...

Tough luck for the person-in-charge-of-records who didn't know those facts:

Ordinary wooden or metal files can't be trusted to protect any vital records against fire. Temperatures above 350°F.
—common even in a flash fire—cremate papers instantly without exposure to flame . . .



Mosler Insulated Record Containers combine the convenience of a file with the protection of a safe. Available in 2, 3, or 4 drawer heights, letter or legal width—wide variety of finishes.

Suppose your company's records burned!—could you furnish sufficient proof of loss to collect on fire insurance? More important, could you duplicate all the records your company must have to stay in business? Remember: Some of the most disastrous fires have occurred in fireproof buildings. And 43 out of 100 firms that lose their records in fire, never reopen. So don't gamble with your company's future...or your own!

-GET POSITIVE PROTECTION, NOW! Install Mosler Insulated Record Containers.. They provide the constant, on-the-spot protection of a one-hour Underwriters' Laboratories, Inc., Class C, tested and approved safe—plus the convenience of a modern, efficient filing system. Insulated receding door locks over file drawers...seals fire out! Yet, it costs so little for this invaluable protection.

Why take chances? See your Mosler dealer today, and be sure! Send for the illustrated booklet, "Mosler Insulated Record Containers."

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# This triple-action Burroughs slashes accounting time and cost

Because it's the only typewriter-accounting machine that computes by direct mechanical multiplication (not repeated addition)—this Burroughs really slashes the time and cost of handling accounting work!

On payroll, for example, employee earnings are calculated . . . employee statement and check written . . . employee ledger and payroll register posted—all in one fast, simple operation!

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A Burroughs helps the operator to do more work in less time, with less effort. The machine

automatically computes and prints complete answers . . . remembers each result, totals all results, computes and prints the total or ne. The operator doesn't type any of these figure . . . can't type them wrong.

Electric calculation plus a host of other automatic features makes posting practically effortless, whether one or several records are being written.

This Burroughs is just one of a family of type writer-accounting machines adaptable to full time work on one job or part-time work of many. Find out how much they can do for you in saving time, cutting costs, increasing job satisfaction—and in getting you the figure facts you need, when you need them. Your local Burroughs man is equipped to get right down to cases. To work with your people and your methods now. Call him today, or fill in and mail the convenient coupon.



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pancy. Consequently, fires originating in extensive oil deposits in such locations have caused damage far greater than similar fires in buildings protected by sprinklers.



In a special application of Vericon wired television for banks, a person desiring a record operates a control to flash the number of the ledger card onto a panel on top of the desk of a girl in the record room. The latter then inserts the required ledger in the holder in her desk drawer for televising, as shown. As not all of the statement can be seen in the viewer at once, two controls are provided for the person at the viewing panel. One moves the ledger back and forth and the other, up and down. Other applications of Remington Rand's television for business were described in the May Dus's Review.

Servicing Records—A Business Archives Center, organized to provide responsible custody and complete servicing of records for firms which are not large enough to set up their own archives centers, recently was opened in New York City.

Studies by the National Records Management Council having demonstrated the need for such a center in New York, the Council encouraged business men to finance the project. Inquiries already have been received from groups in Houston, San Francisco, and Washington, D. C., interested in financing similar centers.

Both the physical storage—100,000 square feet of space in a warehouse selected for maximum security—and the services provided are under the technical supervision of the National Records Management Council.

"V-a-l-v-e Controlled Record-Keeping" is featured, based on the handling of records according to value, activity, life-span, volume, and economy of preservation. The Center's experts inventory, arrange, and evaluate records,

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Only a hint of flame at this bank of high voltage transformers and—quick as a flash, *flutomatic* FIRE-FOG goes into action. From strategically positioned nozzles, a concentration of fine water spray is directed at the blaze. Flames are forced down . . . the fire area cooled. In but a matter of seconds, extinguishment is complete and damage to equipment confined only to the point of fire origin. Even out-of-service time has been held to a minimum.



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while technicians microfilm, copy, or repair records as needed.

Instantaneous reference may be made to records by company messengers or by the center's personnel. Complete flexibility is offered in deposits and withdrawals. Leases are not required, nor is the rental of floor space necessary. Companies depositing their records pay solely for the actual volume of records on deposit each month. Space for the depositor's expanding requirements is guaranteed, but is paid for only when occupied.

By releasing valuable office space, making filing cabinets available for the current accumulation of records, and obviating the need for purchasing new cabinets, the center is intended to cut record-keeping costs as much as 90 per cent over the comparable cost of storage in business office space.

**Copying**—A Whiteprinting machine for office use has been introduced by Charles Bruning, Inc., Chicago, permitting fast reproduction of letters, forms, charts, and other copy.

Requiring a floor space of only 27 by 28 inches, the printer is self-contained and needs no outside ventilation. It uses an odorless developer supplied in powder form to be mixed with water.

Like the larger Bruning models, the No. 10 makes exact positive copies of anything typed, printed, drawn, or written whether the original is transparent, translucent, opaque, printed on both sides, or printed in color.

Documents can be reproduced of any length and up to 11 inches wide. An



operator can copy 10, 81/2 by 11 inch translucent originals in two minutes. Reproduction may be in black or colored lines upon white or tinted paper, cloth, or film.

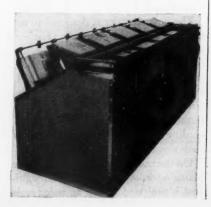
Theater in a Sample Case—An unusual kit which permits a salesman to dramatize an otherwise rather dry subject is provided for the display of products of Luxor Lighting Products, Inc., New York City. The firm specializes in the manufacture of lamps for industrial and commercial use.

The kit, whose outward appearance resembles an executive's brief case from which it was adapted, opens to present a small theater featuring the Luxor line of incandescent and fluorescent lights. Unzipping a side of the case, the salesman discloses a velvet curtain which he raises on a stage of bulbs. Seated with the prospect or walking about surveying lighting requirements as he talks, the sales representative, by remote control via a 10-foot cord, flicks on a fluorescent light above the display illuminating the Luxor trade mark. Then at will he clicks on, individually or in combination, the other 15 lights ranging up to 300 watts. The lamps, mounted in an aluminum base, are reflected by an aluminum backdrop.

Back of the display, ample space is provided for the sales kit. Exclusive of this kit the 18-inch long case weighs only 9 pounds.

Mechanical Collator—Engineered for a heavy volume of collating work, the "Thomas Vacuumatic Collator," manufactured by the Thomas Mechanical Collator Company, New York, has a capacity of 1,000 sheets per bin and is available in 5, 8, and 10-bin models.

It handles stock from 5 by 8 to 9 by





DON'T PUT THE WHOLE BLAME on young drivers. "Carelessness" is a community responsibility . . . to be met at a community level where good driving instruction gets its start. If we are to reduce the large number killed and injured annually in road accidents, it is a civic duty to see that our young people everywhere are grounded in safe driving fundamentals - through a positive, workable, community driving program, especially in high schools.

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To make it a safer place—American Surety Group is cooperating with its agents throughout the country in their participation in local drivers' safety programs. These men can suggest ways for bettering existing programs (in local high schools), or can offer valuable help in setting up one.

Call our nearest agent\* today! He can help you to lessen traffic accidents—an important contribution toward greater safety for your family-your community-your country.

> \* Or a word from you to our Agency & Production Department, American Surety Group, and we'll have him call.



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12 inches and has variable operating speeds of from 15 to 40 sets per minute. It will take care of folded stock in two or four folds.

Collated sheets will not be delivered by the suction-fed machine if the conveyor jams or if any sheets in a set are not picked up. Loading can be accomplished while the collator is in operation.

Non-Slip Flooring-An abrasive rolled steel floor plate which offers protection against slipping is marketed by the Alan Wood Steel Company under the trade name of "A. W. Algrip."

Abrasive grain of the type used in grinding wheels is rolled as an integral part of the upper portion of the floor plate. It is intended for industrial floors, loading platforms and ramps, walkways, building entrances, trench and hatch covers, and in other applications where there is danger of men slipping and injuring themselves. The flooring does not lose its non-slip nature: as the surface wears new abrasive particles are exposed.

The material is available in plates up to 60 inches wide and 144 inches long, with thickness ranging from 1/8 to 3/8 inches. It may be sheared, drilled, countersunk, machined, and flame cut.

Simplified dictation for the executive and transcription for the secretary are provided through the new "Tycoon" recorder and "Lady Tycoon" transcriber recently marketed by the SoundScriber Corporation.

The wooden cabinets previously used are replaced with die-castings of airplane metals for extreme light weight. More compact than the previous model, the new recorder and transcriber occupy little more space on a desk than a letterhead.

The new recorder is designed to remove irritation in dictation. For example, if an executive has lost the thread of the dictation after receiving an interruption such as a telephone call, by simply pressing a switch he can listen back to the last few words of his dictation without manipulating the recording instrument itself. This plays back through the microphone.

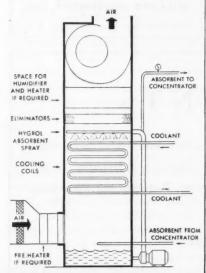
On the transcriber, the surface of the plastic recording disc, four times magnified, is projected against an index scale onto an illuminated mirror. This eliminates index strips or slips. By glancing at the mirror as she types the secretary can judge the length of the letter as well as observe where corrections are to be inserted. The secretary may repeat any portion of the record at will, picking up where she missed the first time. Due to the television screen effect provided by the mirror, this is called the "Television Indexing Transcriber."

**Paper Clip**—A new type of paper clip consists of a piece of light resilient metal, bent to form a clip 2½ inches long by ½ inch wide.

This heavy duty clip, suited to a variety of office uses, was devised by Forest J. Neel, vice-president and manager of Dura-Clip, Inc., Louisville. It is tongued and grooved in such a way as to increase its resiliency and give it an ample holding surface. The tension is calculated to remain throughout the lifetime of the clip.

Air Conditioner—A new system of air conditioning giving complete control of temperature and relative humidity, is being commercially introduced by the Niagara Blower Company. This "Controlled Humidity Method" provides dry air at normal atmospheric temperatures with little or no refrigeration required.

Drawn by fans into the casing housing the apparatus, the air is filtered. It then enters a chamber where it is dehumidified by passing through a spray of



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Accounting (Chartered Accountants)
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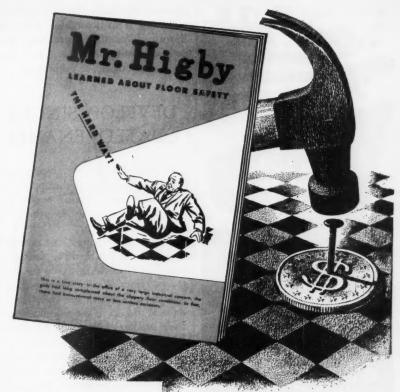
**Chime Signal**—A completely new feature in intercommunication systems is the combination of a soft chime and signal light introduced by Executone, Inc.

Known as "Chime-Matic" signalling, the call originates with a single stroke of the chime and the light remains on to remind a person, who may have been called away from his desk, that a call is awaiting him. The caller merely presses a button and does not have to hold down the "talk" key or to announce himself. In cases of emergency the voice can be interjected through the system, however. Call acceptance likewise is simplified as the recipient does not have to identify or "match buttons" with the station called.

The new method eliminates the possible embarrassment of company secrets being revealed to a visitor. The chime and light are not disturbing and can be ignored if desirable by the person being called.

Volumetric Glassware—Calibration of thermometers and volumetric glassware, a service formerly performed only by the United States Bureau of Standards, now is provided by the United States Testing Company, Inc., in its Hoboken laboratory, announces Dr. T. Smith Taylor, Director of Research.

This service is being offered after a thorough canvass of the thermometer and volumetric glassware manufacturers indicated a serious need for authoritative, unbiased tests and certification. The demand upon the facilities of the Bureau of Standards has been too great, Dr. Taylor points out, so, after conferences and discussions with members of the Bureau, the United States Testing Company decided to make the new



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## DEVELOP SINGLE COATED ENAMEL

An entirely new development in porcelain enameling is the application of a single coat of enamel to titanium steel, introduced by the Westinghouse Electric Corporation.

A thin, tough, single-coat porcelain enamel finish has been the aim of the porcelain enamel industry for more than 50 years, Westinghouse engineers point out. Users of the glass-bonded-on-steel process in the manufacture of their products know that the thinner porcelain enamel is applied to the steel, the closer they are to the solution of their most vexing problem: chipping of the finish. Important, too, to such producers is the fact that elimination of the undercoating should lower production costs.

Millions of electric parts, such as range bodies and ovens, the inside or food liners of refrigerators, parts for automatic washers, and components for other electric appliances, are enameled annually at the Mansfield Ohio, plant of the electric appliance division of Westinghouse. While chippage losses had been lowered by Westinghouse from an average of 18 per cent in 1930 to 0.6 in 1948, company experts believed they could be reduced still further. They put their faith in the development of a single-coat porcelain enamel process.

With the introduction several years ago of a titanium enameling steel by Inland Steel Company designed for a single-coat enameling process, Westinghouse began its experimental work with single-coat enameling. The conventional pattern for enameling to-day calls for two coats: a blue undercoat applied by hand-dipping or spraying and the final porcelain finish. Both coats are fired, individually, in enameling furnaces at temperatures exceeding 1,500 degrees Fahrenheit. In addition, an acid-resistant coating is applied to many appliance parts. The new ti-

tanium steel enamel finish is acidresistant.

Great strides had been made by Westinghouse since 1930 in reducing the thickness of the enamel. With the development of the single coating of titanium steel, the thickness of the finish averages between .0035 and .006, on a production line basis. Thus the finish of the titanium enamels now approaches the thickness of a paint finish. The losses on products shipped to the field have been reduced to zero.

#### Ranges Chosen for Test

The record was established for electric ranges on which the platform or top cooking surface was made of titanium steel and finished in a single coat. With more than 250,000 of these ranges made, Westinghouse had yet to receive a chippage report from the field. The platform was chosen for the initial work on the single-coat process as it receives harder use in the home than any other appliance and the platform is more subject to damage in shipping than other appliance parts.

The development of the single-coat process produced many problems of its own. In conventional two-coat enameling, the blue undercoat makes it possible to cover up minor flaws in the metal or in processing. Considerable research had been conducted before Westinghouse engineers found that a nickel coating was needed in the single-coat process. The nickel plating is done automatically by immersion and eliminates most of the time and labor of the regular ground coat process. The engineers found that poor adhesion would result if the titanium steel lacked sufficient nickel, or that there would be pitting and blue spots if the nickel deposit was too heavy.

The titanium steel, as developed by the Inland Steel Company, is a special enameling steel which has a quantity of titanium in it. The titanium combines with the carbon in the steel to form an exceedingly stable compound. The new steel is practically inert at enameling furnace temperatures.

Manufacturers of frit, the porcelain enamel in powder form, developed new mixtures for the titanium steel. Conventional frits produced for regular two-coat operations were not applicable to the new steel.

#### FAILURES

(Continued from page 17)

prior to the failure. Otherwise, the man or men comprising the management are classified as:

(A) Inexperienced in the line if he, or they had not been connected with the line for at least three years prior to starting business.

(B) Lacking in managerial experience if he, or they had not conducted businesses or held managerial positions for at least three years prior to starting business.

(C) Having unbalanced experience if he, or they treated as a management unit, lacked experience in any operational division of the business such as sales, finance, purchasing, or

(D) If all experience factors were present, or the management had been in control for three years or more prior to the failure, incompetence is indicated.

Note: These same experience factors are also considered in relation to a change in or an addition to any of the following method of operation features made within the three years prior to the failure:

(a) Lines handled

(b) Distribution channels employed

(c) Functions performed

3. When neglect, fraud, or disaster is the broad classification, only one underlying cause is designated.

Note: The underlying causes associated with these three broad classifications are self explanatory excepting "misleading name" which indicates use of a name similar to that of a reputable concern for the obvious purpose of misleading creditors.

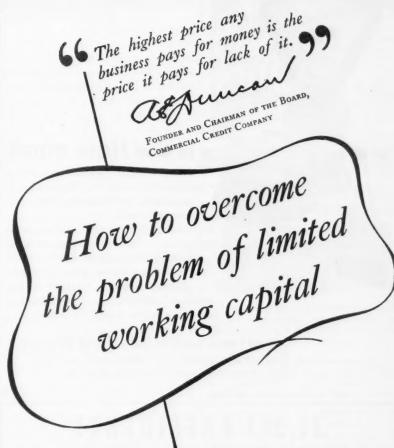
4. But, when inexperience or incompetence is the broad classification, it is frequently necessary to designate two underlying causes.

Bearing on this double choice of underlying causes, are the facts that:

(A) Declining or inadequate sales are apt to be followed by proportionately heavy operating expenses.

(B) Receivables or inventory difficulties, or excessive fixed assets frequently result in unfavorable operating expense figures.

Note: Receivables difficulties include



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situations where receivables were heavy, past due, or uncollectable.

Inventory difficulties include situations where inventories were heavy, slow moving, or unsalable.

(C) A poor location or competitive weakness is likely to adversely affect sales and expenses as well.

In these circumstances, insofar as it is possible to do so, the selection of a cause and an effect as underlying causes has been avoided.

To illustrate, selling too much merchandise on credit, extending too long credit terms, carrying too heavy an inventory, or investing too much in fixed assets has been classified only as such in the underlying causes rather than in combination with lack of working capital.

On the other hand, when one underlying cause was insufficient by itself to bring about the embarrassment, two underlying causes are designated.

Generally, in such circumstances, declining sales volume is indicated in combination with receivables or inventory difficulties, heavy fixed assets or excessive withdrawals.

#### OIL

(Continued from page 16)

than by the drill." Oil sand in pieces no bigger around than a quarter provide the clues. Canned or quickfrozen for the trip to the laboratory. Technicians duplicate in hours the processes that took nature millions of years. Analysts measure how much oil and water the sand contains, how porous it is and how well these pores connect. The oil's weight and resistance to flow, and the main drive which will produce it, are determined. When enough wells have been drilled to define the field, the amount of oil found in numerous cores helps engineers to recommend where and how far apart to drill the remaining wells

Proration and scientific spacing of wells indicated the need for a third innovation—co-operation among operators. The ultimate here is to drill and operate an entire pool as a single unit. The yield from a small field at Van,

Tex., proved the soundness of this theory. Shortly after its discovery in 1929, the owners pooled their holdings under a committee. Wells were spaced and their flow paced as if the field belonged to one superwise petroleum engineer. Twenty years after discovery, half its wells are still flowing. In old boom days half the wells would have had to be pumped after 20 months, if not abandoned.

Unit operation was hampered by two big obstacles: human nature and law. The individual operator hesitated to turn his business over to a committee of his competitors. And when he did he risked anti-trust prosecution.

#### Unitization Agreement

So far human nature has mellowed more than the law. Many operators, convinced of the benefits, have gone ahead with some form of unitization. The legislators have been cautious. Of the leading oil states, only three have laws specifically exempting any unitization agreement from being held in violation of anti-trust statutes. Texas, which normally produces almost half our oil, has just become the fourth by passing its first oil unitization bill providing "reasonable exceptions" to its anti-trust laws. Only Oklahoma can compel a field to be treated as a unit when 85 per cent of the working interests want it.

Dr. H. H. Kaveler, a leading petroleum engineer, defends the practise by saying, "It is not un-American to produce twice or treble the amount of oil from a pool. It is not un-American to reach the maximum of efficiency in order that petroleum may be produced at ever-decreasing cost to the consumer and in adequate supply."

The oilman's conservation efforts began when he refused to give up after his first flush production was gone. A second oil crop of many million additional barrels has already been produced through secondary-recovery methods.

The earliest production booster was the pump. The industry has continuously improved pumps and pumping methods to get more oil from the nearly three-fourths of our wells which must be pumped. Most of these latter were early shallow wells, or were drilled before proration, scientific spacing, and unitization. But in recent and future fields modern conservation methods should postpone indefinitely the costly last resort of pumping.

In 1865 a Pennsylvania operator found that oil was again visible at several of his supposedly exhausted wells. Curious, he investigated to find that water from a broken pipe in another hole had escaped into the oil sand. He stumbled upon another recovery method, washing out oil with water. One moribund pool in Pennsylvania had yielded 236 million barrels in its 49 productive years. Brought to life by water-flooding, it has already topped that output in the 28 years since. And engineers expect the secondary program there to yield up to 350 million barrels more.

When the East Texas field began pushing up as much salt water as oil, operators pumped the water back into the sand at scientifically selected spots. This not only disposed of the water but also rebuilt pressures and flushed out more oil to add 600 million barrels to its recoverable total.

From water, oilmen turned to gas to rejuvenate wells. Their experiments led to the nearest thing yet to perpetual motion. The gas which lifts the oil to the top of the casing is there separated from it. Then this casinghead gas is stripped of its natural gasoline. The dry gas is next compressed and pumped back into the earth through injection wells. Gradually it works its way through the oil sand, carrying another load of oil with it and finally lifting this oil to the head of the casing. Then it repeats the cycle.

From this rejuvenation of pressures in oil fields, oilmen have proceeded to maintain pressures in new ones. To-day they unitize for pressure maintenance as soon as they have drilled enough wells to know they have a field.

Both practises should long defer pumping and materially increase oil recovery. They have also snuffed out thousands of gas flares kept burning to prevent the hazards of gas accumulating in the fields. The gas has already done two useful jobs; lifting the oil and then yielding gasoline. Under the growing concept of conservation it is put to work a third time in re-pressuring or is piped to your range or furnace. The flaring that still goes on is usually found in states with inade-



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All told, the new producing methods have more than doubled our usable oil reserves without the discovery of new resources. At first voluntary among progressive oilmen, they later were enacted into laws by most oil states. Now information is available to all through the Interstate Oil Compact Commission, a clearing-house where officials and operators unravel their mutual conservation problems.

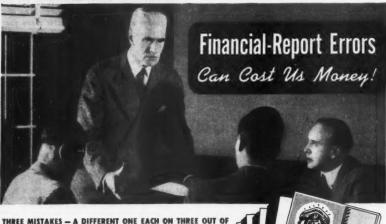
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sey), told me not long ago. "Our modern conservation techniques alone are adding billions of barrels which otherwise might be unrecoverable. And natural domestic petroleum will be supplemented, to the extent required, by imports and by conversion of oil shale, gas, and coal into liquid fuels.... Known reserves and processes already available will provide our requirements for many hundreds of years."

A less scientific but similarly optimistic prediction was made several hundred years before. The Indians of Pennsylvania and New York collected oil long before the coming of the white man, and they had a word for it. They called it "Atouronton," which means, "Oh, how much there is of it!" Thanks to conservation methods worked out by the oilman himself, the Indians are still right.

#### BRITAIN

(Continued from page 19)

will proceed to examine reasons for the subsequent devaluation.

We can perform some instructive calculation to show basic causes for the devaluation from \$4.03 to \$2.80. Out of a population of 50 million people some 23 million are available for work. There are 3 million more employable adults than there were in early 1939 and the official unemployed are 1.7 million



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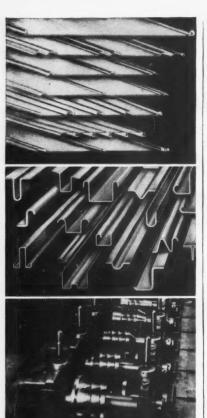


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less. Thus there are about 4.7 million more people on payrolls.

But let us see how this labor potential is frittered away or used in ways which cannot increase the physical standard of life in terms of the estimated equivalent in millions of workers:

ı.	Increased numbers in the armed forces	
2.	and in munitions production  Increased numbers of clerks and other	1.2
	indirect labor caused by additional gov-	
	ernment controls	1.2
3.		1.0
4.	Reduced hours of work	1.0
5-	Earlier post-war marriages and the in- creased number of children to be cared	
	for, requiring the time of women	1.0
6.	Raising of the school-leaving age and	
	the increased number of students	0.8
7.	Increased numbers in the Civil Service	
	and local government service (non-in-	
	dustrial)	0.6
8.	Increased length of holidays	0.6
9.	Increased number of black marketeers	
	and criminals	0.3
10.	Increased canteen staff personnel	0.3
II.	Interference with working hours due to shopping and other problems arising	
	from shortages	0.3
12.	Hidden unemployment due to short-	
	ages of many kinds	0.2
Tot	al loss in labor potential	8.5

There is some room for argument on the individual figures, but the list could be added to. Many would reach an appreciably higher figure.

If one deducts from 8.5 million the 4.7 million increase in employment, one conclusion is that there are, in effect, 3.8 million fewer persons actively contributing to the country's wealth. There were 18.5 million persons working before the war and this figure by the above computation can be compared with 14.7 million at present. With this drop in earning potential the value of the pound may be computed to have dropped correspondingly to \$3.50. Alternatively, it is well within the power of the country as a whole to release much of this labor for productive work and bring the pound from \$2.80 nearer to \$3.10.

It might be argued by the idealist that our net reduction in working hours is a mark of our social progress and should be more than offset by the greater output per hour of modern tools and by increased mechanization of processes. What is being discussed, however, is the effect of reduced hours on production and possibly on the value of the pound in dollars.

As progress is a factor common to both countries it does not contribute to the relative issue. We lose output at least *pro rata* to reduced hours of work.

Sickness rates of workers are more than doubled in spite of (or is it because of) security of employment, more holidays, shorter hours, and medical benefits. The Government is having to give special attention to this problem in the Royal factories.

#### Reasons for Lack of Output

To continue, there are a number of other factors which make it difficult for the people to obtain high rates of output when they are actually at their jobs.

1. There is the \$35 billion of war damage and arrears of maintenance which make buildings, tools, and plants much less effective. The need for exporting in order to obtain food means that it will take some ten years more to correct this state of affairs.

2. There is a higher labor turnover. The average rate of labor turnover in the United Kingdom is now for women 50 per cent and for men 30 per cent.

3. There is slower transportation and communication. Every job takes longer to do.<sup>1</sup>

4. There was a gap of business experience and training during the war years.

5. There is less education of recruits due to the lack of buildings, equipment, books, and teachers.

6. There is less food for everyone.

7. There is a shortage of raw materials.

8. There are more strikes, especially in nationalized industries in which two-thirds of all the strikes take place.

9. There is the age-long resistance of operatives to improvement and there are arrears of improvement due to war.<sup>2</sup> 10. There is a shortage of electricity.

11. The population is aging, for births around 1903 were at the peak.

Although some of these factors overlap to a certain extent those already analyzed in terms of manpower, I estimate their net additional effect is to reduce the efficiency of labor on the job to 90 per cent of pre-war. Fortunately I do not find labor so unwilling to work as is often and in some cases

<sup>&</sup>lt;sup>1</sup> People have been waiting as long as five years for a telephone in their residence. This in spite of paying the highest income tax in the world, high local rates, property tax, national health insurance, a variety of stamp duties, purchase tax, entertainment taxes, and profits tax on the earnings of their savings.

<sup>&</sup>lt;sup>2</sup> Fortunately there is evidence that some trade union leaders are helping to combat this attitude. In addition, the inclusion of workers in productivity teams visiting the United States will have a good effect.

loosely stated, but even so, the estimate of 90 per cent stands. Clearly, if a number of these factors could be removed the value of the pound might be proportionately increased.

Finally, there are some factors for which the Government must take special responsibility; for example, the continuation of bulk buying resulting in a poor and uneven quality of raw material. There is also the preaching of discontent which produces a lack of zest coupled with a somewhat reduced will to work. There is Government delay and interference at every stage. Government planning and the introduction of the Town and Country Planning Act are obstacles to improvement. The effect of these factors is really serious. They must reduce the value of the pound considerably. The people do not work so badly when on the job, but the misdirection of energy is enormous.

#### The Genius of Management

How does it happen then that we have devalued the pound only to \$2.80 and believe for the moment that we have gone too far? To my mind the genius of management has overcome much of the damage being done by Government. Perhaps industry is doing more in the real training of employees than is the whole of the educational system. Buildings and plant are being used as never before and doubtless with less waste of material. Motion and time study have been developed. A great human wisdom pervades industry which rises increasingly with the great burden of Government upon it.

High taxation, the deriding of management, and endless difficulties make it but little worthwhile for any manager to take on more responsibilities. Accompanying the announcement of devaluation was a notice of a 30 per cent profit tax to precede the 45 per cent tax already on undistributed profits.

Rather tentative Government statements suggest that industrial output is far greater than before the war, but no account whatsoever is taken of quality, nor indeed is it easy mathematically to do so. It was a difficult enough problem and one that was shirked before the war (when data were much easier to obtain and understand) to convert volumes of every kind of product into

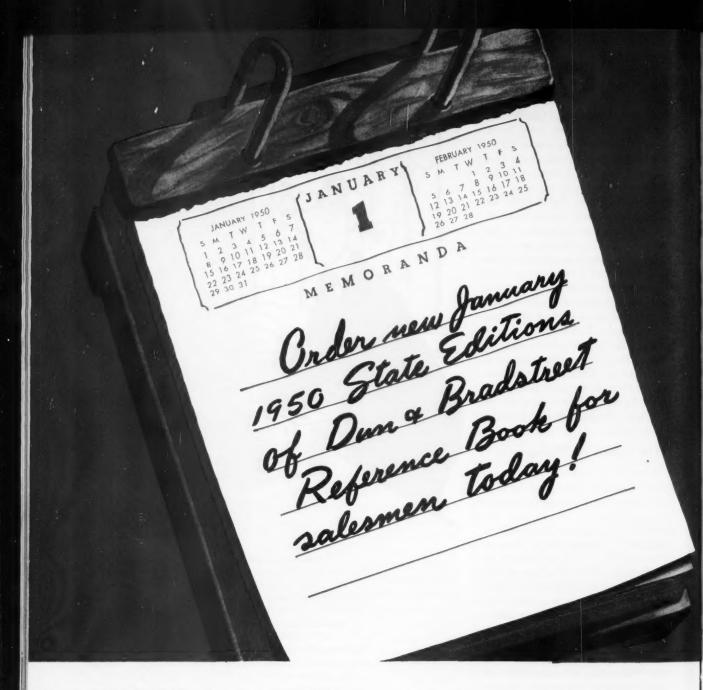


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an over-all index figure. An index which takes quality into account has never been attempted. It is true that since the war there has been a steady and praiseworthy increase in production in spite of Government.

To the best of the writer's knowledge, no similar analysis to that which appears above has previously been published. There may be errors, but they are not serious ones.

#### Effects of Devaluation

Devaluation will upset industry from end-to-end. At the same sterling prices 30.5 per cent less dollars will be received. For the same dollar prices Great Britain must pay 44 per cent more for its goods or give 44 per cent more goods if British prices are not increased. Prices must rise and perhaps they will rise rapidly. There must be further lowering of the standard of living. If wages increase they will never catch price increases.

Manufacturers who have sold to the United States at a loss may now make small profits and be more heartened to trade there and more able to compete in lower price ranges. On the other hand it must be remembered that the United States is now likely to be able to buy many raw materials such as wool, rubber, and tin at a lower dollar price and thus much of the advantage that United Kingdom competitors might have had is lost.

The high level of tariffs in the United States shall never be forgotten. What is wrong with American efficiency and



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"First it's the Government, then my wife, and

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the American economy that the United States cannot and does not compete freely with the rest of the world? The British Commonwealth was built on free competition. The outlook is grim.

In defense of labor it must be said that the real problem of the times, the enormous war damage which cannot be cured in less than ten years, has never been put to them. They have not been told that pre-war efficiency cannot be attained. Furthermore they have suffered from much political preaching; the doctrine has been less work for more pay.

It is no wonder a cartoonist sketches a coal miner talking to the Minister of Mines and saying, "We have kept our end of the bargain. We are doing less work, what about more wages?"

Before the war the advanced employers of this country met the trade unions more than half way. What the unions wanted was often right and was an expression of a healthy discontent with social conditions. The good employer was ashamed not to grant a wage increase if it were deserved and due. The trade unions have greatly suffered from close association with the Labor Party.

#### Worries of the Union

Before the war, although the Labor Party was founded by the Trade Union Congress, the latter claimed to be non-political and indeed a high percentage of its members were Liberals. Even now perhaps 25 per cent will vote Conservative.

Senior trade unionists have been appointed to the nationalized jobs and there has been a great change at the top. Union officials are out of touch with their people, for in some parts it was not possible to hold regular trade union meetings during the war.

The writer was present at the last Trade Union Congress. It was clear the trade unions had no quarrel with industry. They like to criticize profits, but this is politics.

They are much more worried by the economic problem generally for which they can no longer blame employers. They are disturbed about the Communists in their own ranks. The trade unions are debarred from taking any real interest in production. Their whole history is against it and this they

are willing and prepared to say publicly.

The tendency of the times is to put a representative of the union on every possible national committee until the stage has been reached when many senior trade union officials are protesting against the claims on their time. At a guess the average attendance of trade union officials on committees of many kinds might be 25 per cent. The trade unionists dare not agree in any committee meeting about anything likely to be unfavorable to the union members.

The real job of the trade union leader these days must be to get back to his own people and to know them and lead them. It certainly would not be untrue to say that it is labor which has sabotaged Government schemes. It is not employers.

#### Industry

Industry is swamped with threats of nationalization, development councils, and interference at every turn. Two or three times a day in any conversation with employers the word "blackmail" will be used. Boards of directors have to consider carefully the reaction of the Labor Government to any decision, however wise. The manager has to be careful in his comments about nationalized industries, especially when there is a chance that his industry will be nationalized. He fears that anything he says may be used against him. The writer has been subject to attempts at blackmail and therefore speaks from personal knowledge.

The manager who for years has maintained happy relations, good discipline, and a good output is under constant threat. It is too easy for labor to stage an apparent discontent, for the trade unions to complain, and for the manager to be removed to some lower employment. Because there is only one employer he is helpless to resist. Enormous and improper pressure has been brought to bear upon individuals and the writer has not escaped his share. At the present time the nationalized industries are beginning to develop buying policies. These policies are such that any suppliers can be victimized. However, it is becoming plain to the trade unions that the political parties and the workers themselves are sabotaging nationalization.

A high rate of absenteeism, high labor turnover, the poor quality and shortage of materials due to bulk buying, and delays in delivery are some of the many factors with which the manager must cope in his day-to-day work. The shortage of electricity is greater than it need be owing to faulty Government planning. While the steam boiler producing industry is working at full capacity, the Government has not taken care that buildings be provided for the boilers already constructed.

#### **Electricity Curtailment**

In many parts of the country for a few years to come electricity will be greatly curtailed in Winter, possibly for one day in five. The trouble could be cased if unions would agree to work on Saturday in lieu of some other day. The reality of the situation has not yet been faced, although a return to prewar working hours is now suggested.

In all this the great quality of British management has stood out like a beacon light. Industry has borne all the difficulties and rapid changes of war and now in peace, when difficulties are no less, its superb calm and ability are holding the nation together. In spite of attacks on industry and managers, in spite of high taxation which removes nearly all incentive, industry carries on. Would the rest of the nation were so effective.

Nevertheless, industrialists have an inflationary outlook. Shortage of labor, however artificially created, causes wages and salaries to go up and up. Managers of long experience have a real affection for their workers. They know that while some unemployment is always inevitable and creates a sense of responsibility, they are not happy to face unemployment of the people with whom they have worked for so long.

High taxation and export requirements retard replacement of worn out plant. The Town and Country Planning Act creates months, even years, of delay in development. Furthermore, there is a flood of quackery, including

The Dun's Review Regional Trade Barometers, including back figures, adjusted for seasonal variation, together with additional information, are available in pamphlet form. The barometers, appearing in Dun's Review since 1936, measure consumer buying for 29 regions of the U. S. and for the country as a whole.

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Government collects and spends 45 per cent of the national income. This must appear in every price. Is the money well spent? Government has preached shorter hours and longer holidays. It has created a shortage of labor which is, sad to say, called full employment. It belittles management. It has introduced planning in fantastic fashion. It has overcentralized. It has decreased individual responsibility and resource. It has constantly attacked private enterprise, the profit motive, and employers.

#### Government

The Labor Government has only itself to blame if the nation rejects it at the next election. A current issue of *Punch* shows a cartoon of John Bull being carried in a baby carriage, "The Welfare State!" He has a knowing smile like the wise and naughty child. John Bull is likely to discard his pram and take charge himself.

Whatever people in general felt about nationalization before it was introduced, it was impossible to be dogmatic. It is the British way to give a man a fair trial. The Labor Government has had a generous trial or, should we say, endless rope to hang itself.

The British workman finds no contentment in nationalization. Two-thirds of all strikes are in nationalized industries. In the first year the National Coal Board lost \$92 million and its small profit in the following year occurred after it had charged industry some \$240 million more.

Ash in nationalized coal is a matter of serious concern. At the Trade Union Annual Congress a railway representative pointed out that the whole loss on the nationalized railways might be put down to the poor quality of coal. Certainly a current fuel consumption of 63.7 pounds per train-mile compared with 52.5 pounds in 1938 bears out this contention. Thus one nationalized industry criticizes another. The trouble with poor coal is not only the operational difficulty of keeping up steam pressure, but the more important indirect troubles it gives to industry. Fewer freight cars are available because more are being used for carrying the extra coal necessary.

Absenteeism in the coal mines which was 6.4 per cent before the war is now 11.6 per cent, although wages are higher and conditions of service have continued to improve at a rate more than that in other industries. Civil aviation losses were \$40 million in 1946-1947, \$44 million in 1947-1948, and \$36 million in 1948-1949. Railways had a loss of \$18.9 million after being relieved of \$86.6 million in charges. These industries have announced they have no hope of better results in the current year. No Englishman can take pleasure in the results of any of these Government activities. The recent report of the Committee on Civil Estimates was that agricultural labor was being operated at a loss of \$12 a week for each worker and \$30 million a year for the special group.

It is possible that the Government has known for the last two years that it was not likely to be re-elected. Certainly there was no tacit assumption of re-election of the Labor Party at the Trade Union Congress.

Socialist theory was made acceptable to a great mass of thinking people because two important principles were laid down decade-by-decade throughout the 50 years of the Labor Party's existence. They were socialization slowly and step-by-step, each step to be proved good before proceeding to the next; furthermore, no bureaucracies were to be set up. What a pity that these policies have not been adopted.

The Government has no magic power to perform the miracle of the loaves and fishes. It lacks flavor and vitamins and gives no hope to the people. The latest encroachments of Government in business life are attempts to introduce political influence into professional and scientific bodies. It has tried to keep interest rates excessively low at 2.5 per cent when a rise to 4.5 per cent seems to be inevitable.

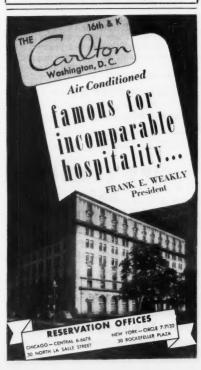
The United States ought to be exceedingly grateful to Great Britain for these great experiments which are being made. They are a costly and grave warning to the world. It is astonishing what the British nation will put up with, but only for so long. It is sad that politics should pervade every field of managerial activities. What has happened to Czechoslovakia is well before our eyes. We have been warned!





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#### STOP TALKING

(Continued from page 13)

Stars." Here's the way we tried to define capitalism to our listeners and to our employees:

"The other day a friend said to a business man: 'You ought to stop talking about capitalism. People don't like that word.'

"The business man replied: 'Capitalism is what we have and what most Americans want to keep. The farmer's land and his barn, his livestock, and machines are capital. The merchant's store, the goods on his shelves, and the truck that delivers them are capital. The tools of the skilled mechanic are capital. Every life insurance policy, every bank account, is capital. Everything that contributes to the production and distribution of goods is capital, from the biggest factory to the smallest newsstand on the corner. Almost everybody in the United States is a capitalist. Capitalism is the only system that lets everyone own capital, live where he pleases, and work at the job he chooses. That's what I believe in."

If we are going to be specific, then what shall we be specific about? About what is going on in Washington? in our own industry? in our own company? Which is going to interest them more?

It seems pretty plain to me that a man is going to be more interested in the events of the place where he earns his living than in events hundreds of thousands of miles away.

I don't see how we can expect our employees to understand the economic system unless they first understand their own small part of it, the company for which they work.

You can turn that around, too. If employees really understand the business for which they work and if they believe in it and consider it a good company and a worthwhile institution, and believe in its good behavior and its good purposes, they are not likely to be against the system of which their company is a part.

So I think we must start talking

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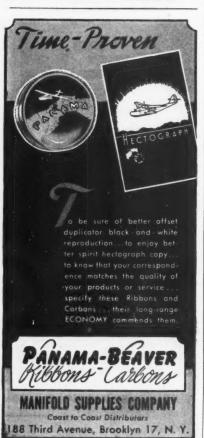
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more about our own affairs. And in doing so, we must prepare to answer any and all questions. I think we have to face up to the situations where it might be momentarily embarrassing. It is far better to have a red face once in a while and have employees believe what we tell them than to try to pretend we are perfect and have them discount everything we say.

#### Selling Each Company's Story

Let us assume we are agreed now on the subjects of whom we want to talk to and the terms we want to talk in. We still have the problem of just how we are going to do it. And that is no small problem.

Like any other sales problem, I think this must be approached individually by each company. I don't think there is any one right answer, since no two situations are exactly alike. Each organization must determine its own marketing methods in selling this economic story.

And, in doing that, we have some very practical problems to face. Assuming the job is to be done by the individual organization, who is going to do it, what individual or group? At what level of management? With what support and help from the rest of the organization? Shall we try to do our own job or shall we buy materials to help us from business organizations, research groups, advertising agencies, or other sources?

All those are questions which management has to answer for itself and



Oh! huh . . . . and where's the button I push when I want you?"



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the answers that are right for my own company may not fit other companies

It seems to me that one of the best ways to do this job is by talking with all kinds of people. In small companies, the head of the company often can talk to all his employees at once. In others, he can talk to all his management people, if not to all employees, and get the management group started to work on the problem. There certainly can be, in any business, conversation between management people and the employees they supervise-if the management people know what the story is and if they have been told that the company wants them to talk on the subject.

In a company like my own, which is large and physically sprawled all over the country, we have to rely a great deal on the written word. And we have developed a system which works for us; not perfectly, of course, but we see improvement in it right along.

On certain types of information I send letters to all employees of the company at their homes, so that both the employee and his family can read them. On other matters the works manager of a plant writes to all his employees at their homes. Every week in each plant

we issue to management people a regular news letter which not only is not confidential but which our management people are expected to pass on to their employees.

Many companies have employee newspapers or magazines. We have some magazines and we think they are useful. They are not much good for telling people news, but they are very good for illustrating some of these economic points by human interest articles and pictures.

#### A Purpose for House Organs

One thing we are clear on-and I hope more companies will come to agree with us: an employee magazine or newspaper, we believe, is too expensive a thing to publish unless it serves some definite purpose. We don't publish magazines just to give employees bowling scores or recipes for using leftover meat. We expect our magazine to contribute definitely to the development of employee knowledge and the shaping of employee attitudes. If they don't do that, as far as we are concerned, they are not worth publishing. They ought to be used regularly to help explain this economic story.

The influence of employee letters or employee publications does not have to stop at the plant gates or the door of the store. In our company, for example, we have developed mailing lists in each community-people whom we want to know our story and be informed of our operations and activities and problems. We regularly send copies of our letters to employees and copies of our company publications to these men and women. Other companies do this also.

Such mailing lists usually include several hundred people, including public officials, other business people, clergymen of all faiths, officials of public and parochial schools and others we wish to reach.

Talking and writing are useful methods, but there are others equally effective which enable people to see for themselves and gain first-hand understanding. I mean visits to our plants or other operations by employees' families, by people in the community generally, or by specially invited groups.

I think such visits are especially valuable to those of us who are in the manufacturing business. It is an interesting fact that most Americans, although they live in the greatest industrial nation in the world, have never been through a manufacturing plant.

To take them through gives them understanding of industry and indus-



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trial problems which they cannot get so well in any other way. We are carrying on an active program of this kind. And I want to emphasize that these are not just tours for engineers. We are not too much interested in having people go through our plants just to see the big machinery and come away with no impression except, "Boy, that was a big place and the wheels certainly go around fast."

#### Visitors Get Complete Story

On the contrary, we try to explain how the plant came to be located in their city, how the stockholders provided the money to build and equip it, what the results have been for that town and for our visitors, in terms of payroll, taxes, value of product, and so on. We want them to see for themselves the working conditions in one of our factories, to understand the safety program, to see the medical facilities for the protection of employees, to learn about our wages and our industrial relations policies.

We have found that it does create understanding, that it does make new friends, and that it not only helps the company's standing in the various communities, but helps to improve employee morale. It is an interesting fact that, far from being disrupted, production usually goes up during a plant visit. And plant visits can be carried on by any company, large or small, if they will just take the trouble to do it.

There are other devices of course. We have used and will continue to use newspaper advertising, special slide films, occasional motion pictures, special training courses, special publications such as booklets on a particular topic. They happen to fit our needs. They would not fit every company's needs.

Some men think, "Well, that all sounds good and probably it is good in a big company. They can afford it. We can't."

To these men I say: Don't you believe it. A lot of the most useful things that can be done cost very little money. They do take some time. They do take thought. They do take enthusiasm and a desire to get the job done. And the smaller company, while it may not do the elaborate things that big companies do, has the advantage of being able to

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talk face to face with its people and its community, which the big company finds very hard, even impossible, to do.

I want to emphasize this one point: The trend toward socialism affects small business just as much as it affects International Harvester, General Motors, or United States Steel. All of us must accept the challenge and do something about it.

We have the greatest economic and political system in the world to sell. Let's get out and sell it where it needs to be sold. Above all, let's stop talking to ourselves.

### DUN'S REVIEW

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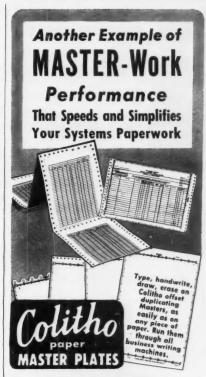
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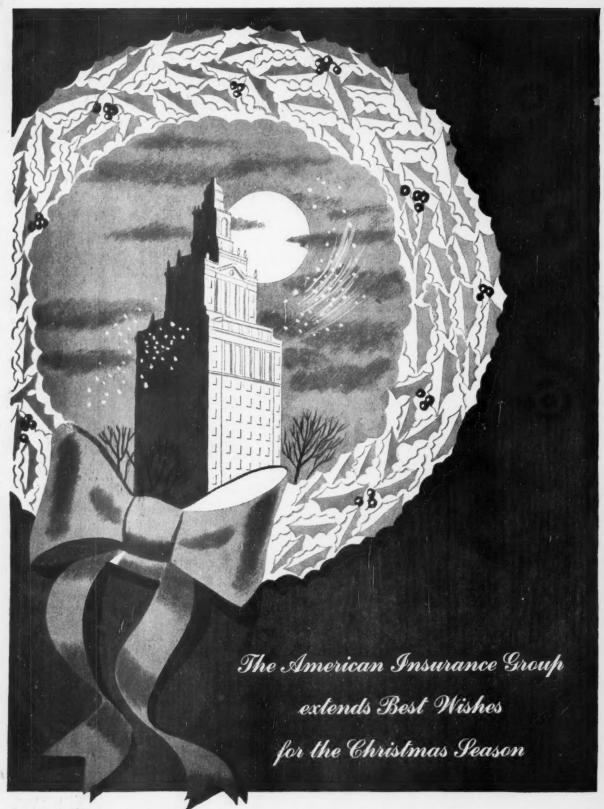
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